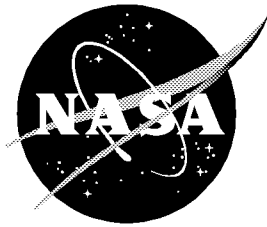


NASA/TM-2002-211446



NASA Langley Scientific and Technical Information Output—2001

Susan H. Stewart, Compiler
Langley Research Center, Hampton, Virginia

March 2002

The NASA STI Program Office . . . in Profile

Since its founding, NASA has been dedicated to the advancement of aeronautics and space science. The NASA Scientific and Technical Information (STI) Program Office plays a key part in helping NASA maintain this important role.

The NASA STI Program Office is operated by Langley Research Center, the lead center for NASA's scientific and technical information. The NASA STI Program Office provides access to the NASA STI Database, the largest collection of aeronautical and space science STI in the world. The Program Office is also NASA's institutional mechanism for disseminating the results of its research and development activities. These results are published by NASA in the NASA STI Report Series, which includes the following report types:

- **TECHNICAL PUBLICATION.** Reports of completed research or a major significant phase of research that present the results of NASA programs and include extensive data or theoretical analysis. Includes compilations of significant scientific and technical data and information deemed to be of continuing reference value. NASA counterpart of peer-reviewed formal professional papers, but having less stringent limitations on manuscript length and extent of graphic presentations.
- **TECHNICAL MEMORANDUM.** Scientific and technical findings that are preliminary or of specialized interest, e.g., quick release reports, working papers, and bibliographies that contain minimal annotation. Does not contain extensive analysis.
- **CONTRACTOR REPORT.** Scientific and technical findings by NASA-sponsored contractors and grantees.

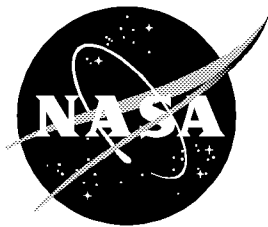
- **CONFERENCE PUBLICATION.** Collected papers from scientific and technical conferences, symposia, seminars, or other meetings sponsored or co-sponsored by NASA.
- **SPECIAL PUBLICATION.** Scientific, technical, or historical information from NASA programs, projects, and missions, often concerned with subjects having substantial public interest.
- **TECHNICAL TRANSLATION.** English-language translations of foreign scientific and technical material pertinent to NASA's mission.

Specialized services that complement the STI Program Office's diverse offerings include creating custom thesauri, building customized databases, organizing and publishing research results . . . even providing videos.

For more information about the NASA STI Program Office, see the following:

- Access the NASA STI Program Home Page at <http://www.sti.nasa.gov>
- Email your question via the Internet to help@sti.nasa.gov
- Fax your question to the NASA STI Help Desk at (301) 621-0134
- Telephone the NASA STI Help Desk at (301) 621-0390
- Write to:
NASA STI Help Desk
NASA Center for AeroSpace Information
7121 Standard Drive
Hanover, MD 21076-1320

NASA/TM-2002-211446



NASA Langley Scientific and Technical Information Output—2001

*Susan H. Stewart, Compiler
Langley Research Center, Hampton, Virginia*

National Aeronautics and
Space Administration

Langley Research Center
Hampton, Virginia 23681-2199

March 2002

Available from:

NASA Center for AeroSpace Information (CASI)
7121 Standard Drive
Hanover, MD 21076-1320
(301) 621-0390

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161-2171
(703) 605-6000

Available electronically at the following URL address: <http://techreports.larc.nasa.gov/ltrs/>

Preface

This report contains a listing of the NASA Langley Research Center's publicly available scientific and technical research output for C.Y. 2001.

The intent of this report is to provide a greater awareness of the broad scope of results and the importance of the research and development work conducted by scientists and engineers at Langley. This current awareness is mandated by the National Aeronautics and Space Act of 1958, which provides for the widest practical dissemination of NASA research.

During C.Y. 2001, Langley's contributions to NASA and non-NASA literature included 13 Technical Publications, 2 Conference Publications, 72 Technical Memorandums, 92 Contractor Reports, 151 Journal Articles and Book Publications, 544 Meeting Presentations, 46 Technical Talks, and 15 Patents.

Introduction

The NASA Langley Research Center is one of the Nation's leading laboratories for research and development in the sciences of aeronautics and space technology. Langley conducts basic and applied research in the areas of aerospace systems, concepts, and analysis, aerodynamics, aerothermodynamics, and acoustics, structures and materials, airborne systems, atmospheric sciences, and systems engineering.

This document contains a bibliography of Langley's publicly available scientific and technical research output for 2001 which is processed through the Center's Office of the Chief Information Officer to become an integral part of NASA's Agency-wide Scientific and Technical Information (STI) system. The results of Langley's research are disseminated in a variety of NASA and non-NASA scientific and technical media and information systems. This document is intended to be a reference summary for researchers and a current awareness publication for the scientific, research, and academic community. Details of the availability of the research references in this document are found in the section, "Availability," on page vii.

Many Langley reports are available electronically on the Langley Technical Reports Server (LTRS) at <http://techreports.larc.nasa.gov/ltrs/> or the Institute for Computer Applications in Science and Engineering (ICASE) Technical Reports Server (ITRS) at <http://www.icase.edu/docs/library/itrs.html> via the World Wide Web (WWW). The relative Uniform Resource Locators are noted below citations for reports available electronically.

The citations are grouped by the Scientific and Technical Aerospace Reports (STAR) subject categories and listed alphabetically by author or innovator. The Langley organization to which the senior author or innovator is assigned and the Program Number are noted below citations when appropriate and included in the indexes.

Patents listed are those which were issued in 2001 and owned by Langley Research Center.

Publication of some journal articles was not known at press time for the 2000 issue of this document. These articles are therefore listed in the 2001 issue.

Availability

<u>Category</u>	<u>Source</u>
NASA Reports	NASA Center for AeroSpace Information (CASI) 7121 Standard Drive Hanover, MD 21076-1320 (301) 621-0390 National Technical Information Service (NTIS) 5285 Port Royal Road Springfield, VA 22161-2171 (703) 605-6000
Patents:	
Patent Application Specifications	NASA Center for AeroSpace Information (CASI) National Technical Information Service (NTIS)
Printed Copies	Commissioner of Patents and Trademarks U.S. Patent and Trademark Office Washington, DC 20231

Contents

Preface . . . . .	.iii
Introduction	v
Availability	vi

Aeronautics

Category 01 Aeronautics (General)	1
Category 02 Aerodynamics	1
Category 03 Air Transportation and Safety . . . . .	.11
Category 04 Aircraft Communications and Navigation . . . . .	.16
Category 05 Aircraft Design, Testing and Performance . . . . .	.16
Category 06 Aircraft Instrumentation . . . . .	.26
Category 07 Aircraft Propulsion and Power . . . . .	.26
Category 08 Aircraft Stability and Control . . . . .	.28
Category 09 Research and Support Facilities (Air). . . . .	.29

Astronautics

Category 13 Astrodynamics . . . . .	.31
Category 15 Launch Vehicles and Space Vehicles . . . . .	.31
Category 16 Space Transportation . . . . .	.32
Category 18 Spacecraft Design, Testing and Performance . . . . .	.32
Category 20 Spacecraft Propulsion and Power . . . . .	.33

Chemistry and Materials

Category 23 Chemistry and Materials (General) . . . . .	.33
Category 24 Composite Materials . . . . .	.33
Category 26 Metallic Materials . . . . .	.39
Category 27 Nonmetallic Materials . . . . .	.42

Engineering

Category 31 Engineering (General) . . . . .	.50
Category 32 Communications and Radar . . . . .	.50
Category 33 Electronics and Electrical Engineering . . . . .	.50
Category 34 Fluid Mechanics and Heat Transfer . . . . .	.52
Category 35 Instrumentation and Photography . . . . .	.60
Category 36 Lasers and Masers . . . . .	.64

Category 38 Quality Assurance and Reliability . . . . .	.66
Category 39 Structural Mechanics . . . . .	.66

Geosciences

Category 42 Geosciences (General) . . . . .	.74
Category 43 Earth Resources and Remote Sensing. . . . .	.76
Category 45 Environment Pollution . . . . .	.78
Category 46 Geophysics . . . . .	.78
Category 47 Meteorology and Climatology . . . . .	.82
Category 48 Oceanography . . . . .	.93

Life Sciences

Category 54 Man/System Technology and Life Support94
--	-----

Mathematical and Computer Sciences

Category 59 Mathematical and Computer Sciences (General) . . . . .	.95
Category 60 Computer Operations and Hardware . . . . .	.96
Category 61 Computer Programming and Software . . . . .	.98
Category 62 Computer Systems. . . . .	.99
Category 63 Cybernetics	100
Category 64 Numerical Analysis	100
Category 65 Statistics and Probability.	104
Category 66 Systems Analysis	104

Physics

Category 70 Physics (General)	104
Category 71 Acoustics	105
Category 72 Atomic and Molecular Physics	109
Category 74 Optics	111
Category 76 Solid-State Physics	112
Category 77 Thermodynamics and Statistical Physics.	112

Social Sciences

Category 82 Documentation and Information Science.	112
--	-----

Space Sciences

Category 88 Space Sciences (General)	114
--	-----

Category 89 Astronomy	114
Category 91 Lunar and Planetary Exploration	114
Category 93 Space Radiation	115

General

Category 99 General	119
Author Index	120
Organization Index.	137
Program Number Index	140

Scientific and Technical Publications

Aeronautics

Category 01 Aeronautics (General)

- 1 Raj, P.; Finley, D. B.; and Ghaffari, F.: An Assessment of CFD Effectiveness for Vortex Flow Simulation to Meet Preliminary Design Needs. Presented at NATO/RTO Applied Vehicle Technology Panel Symposium on Advanced Flow Management: Vortex Flow and High Angle of Attack, May 7-10, 2001, Loen, Norway.
Organization RB Program No. 522-31-31
- 2 Tenney, D. R.: Structures and Materials Technology for 21st Century Aerospace Vehicles. Presented at National Aerospace Laboratory of Japan Advanced Composite Evaluation Technology Center Seminar, November 12, 2001, Tokyo, Japan.
Organization OD Program No. 706-31-31
- 3 Tenney, D. R.; and Pipes, R. B.: Advanced Composites Development for Aerospace Applications. Presented at 7th Japan International SAMPE Symposium and Exhibition, November 13-16, 2001, Tokyo, Japan.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-7sampe-drt.pdf>
Organization OD Program No. 706-31-31
- 4 Wilbur, M. L.; Mirick, P. H.; Yeager, W. T., Jr.; Langston, C. W.; Cesnik, C. E.; and Shin, S.-J.: Vibratory Loads Reduction Testing of the NASA/ARMY/MIT Active Twist Rotor. Presented at AHS International 57th Annual Forum and Technology Display, May 9-11, 2001, Washington, DC.
Organization RC Program No. 712-20-21

Category 02 Aerodynamics

- 5 Allen, J. M.: Parametric Fin-Body and Fin-Plate Database on a Series of 12 Missile Fins. NASA/TM-2001-210652, January 2001, 305 p.
Organization RB Program No. 522-25-31
- 6 Bauer, S. X.; and Wood, R. M.: Base Passive Porosity for Drag Reduction. U. S. Patent 6,286,892. Issued September 11, 2001.
Organization RB
- 7 Bijl, H.; Carpenter, M. H.; and Vatsa, V. N.: Time Integration Schemes for the Unsteady Navier-Stokes Equations. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2612.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2612.pdf>
Organization RB Program No. 706-31-21

- 8 Bounajem, E.; and Buning, P. G.: Prediction of Business Jet Airloads Using the Overflow Navier-Stokes Code. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-1004.
Organization RB Program No. 714-05-10
- 9 Brandon, J. M.; Hallissy, J. B.; Brown, P. W.; and Lamar, J. E.: In-Flight Flow Visualization Results of the F-106B With a Vortex Flap. Presented at NATO/RTO Applied Vehicle Technology Panel Symposium on Advanced Flow Management: Vortex Flow and High Angle of Attack, May 7-10, 2001, Loen, Norway. In Proceedings, Paper No. MP-69-P-43.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-nato-jmb.pdf>
Organization RD Program No. 522-31-31
- 10 Buning, P. G.; Wong, T-C.; Dilley, A. D.; and Pao, J. L.: Computational Fluid Dynamics Prediction of Hyper-X Stage Separation Aerodynamics. *Journal of Spacecraft and Rockets*, Volume 38, No. 6, November–December 2001, p. 820-827.
Organization RB Program No. 522-51-71
- 11 Capone, F. J.; and Deere, K. A.: Transonic Investigation of Two-Dimensional Nozzles Designed for Supersonic Cruise Aircraft. Presented at 37th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 8-11, 2001, Salt Lake City, Utah. AIAA Paper No. 2001-3199.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-3199.pdf>
Organization RB Program No. 706-32-11
- 12 Darden, C. M.: Progress and Challenges in Sonic Boom Research. Presented at JSASS 15th International Sessions in 39th Aircraft Symposium, October 29-31, 2001, Gifu, Japan.
Organization OH Program No. 714-05-30
- 13 Dilley, A. D.: Evaluation of CFD Turbulent Heating Prediction Techniques and Comparison With Hypersonic Experimental Data. (NAS1-00135 Swales Aerospace.)
NASA/CR-2001-210837, March 2001, 31 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210837.pdf>
Organization OC Program No. 522-51-21
- 14 Edwards, J. W.; Schuster, D. M.; Spain, C. V.; Keller, D. F.; and Moses, R. W.: MAVRIC Flutter Model Transonic Limit Cycle Oscillation Test. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1291.
Organization RC Program No. 706-31-41
- 15 Engelund, W. C.; Holland, S. D.; Cockrell, C. E., Jr.; and Bittner, R. D.: Aerodynamic Database Development for the Hyper-X Airframe Integrated Scramjet Propulsion Experiments. *Journal of Spacecraft and Rockets*, Volume 38, No. 6, November–December 2001, p. 803-811.
Organization RA Program No. 522-51-71

- 16 Erickson, G. E.: Control of Interacting Vortex Flows at Subsonic and Transonic Speeds Using Passive Porosity. Presented at 19th AIAA Applied Aerodynamics Conference, June 11-14, 2001, Anaheim, California.
Organization RB Program No. 242-35-20
- 17 Erickson, G. E.: Control of Interacting Vortex Flows at Subsonic and Transonic Speeds Using Passive Porosity. Presented at NATO/RTO Applied Vehicle Technology Panel Symposium on Advanced Flow Management: Vortex Flow and High Angle of Attack, May 7-10, 2001, Loen, Norway.
Organization RB Program No. 242-33-03
- 18 Faulcon, N. D.: Cryogenic Pressure Calibrator for Wide Temperature Electronically Scanned (ESP) Pressure Modules. NASA/TM-2001-211031, October 2001, 21 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211031.pdf>
Organization RB Program No. 992-20-80
- 19 Frink, N. T.; Bonhaus, D. L.; Vatsa, V. N.; Bauer, S. X.; and Tinetti, A. F.: A Boundary Condition for Simulation of Flow Over Porous Surfaces. Presented at 19th AIAA Applied Aerodynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2412.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2412.pdf>
Organization RB Program No. 522-25-31
- 20 Gatlin, G. M.; Parker, P. A.; and Owens, L. R., Jr.: Development of a Semi-Span Test Capability at the National Transonic Facility. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0759.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0759.pdf>
Organization RB Program No. 992-20-08
- 21 Graves, S. S.; and Burner, A. W.: Development of an Intelligent Videogrammetric Wind Tunnel Measurement System. Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-46spie-ssg.pdf>
Organization RB Program No. 706-17-71
- 22 Graves, S. S.; Burner, A. W.; Edwards, J. W.; and Schuster, D. M.: Dynamic Deformation Measurements of an Aeroelastic Semispan Model. Presented at 19th AIAA Applied Aerodynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2454.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2454.pdf>
Organization RB Program No. 706-17-71

- 23 Gumbert, C. R.; Hou, G. J.; and Newman, P. A.: Simultaneous Aerodynamic and Structural Analysis and Design Optimization (SASDO) for a 3-D Wing. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2527.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2527.pdf>
Organization RA Program No. 714-05-20
- 24 Gumbert, C. R.; Hou, G. J.; and Newman, P. A.: Simultaneous Aerodynamic Analysis and Design Optimization (SAADO) for a 3-D Flexible Wing. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-1107.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1107.pdf>
Organization RA Program No. 714-05-20
- 25 Holland, S. D.; Woods, W. C.; and Englund, W. C.: Hyper-X Research Vehicle Experimental Aerodynamics Test Program Overview. *Journal of Spacecraft and Rockets*, Volume 38, No. 6, November–December 2001, p. 828-835.
Organization RB Program No. 242-80-01
- 26 Hollis, B. R.; Thompson, R. A.; Murphy, K. J.; Nowak, R. J.; Riley, C. J.; Wood, W. A.; Alter, S. J.; and Prabhu, R. K.: X-33 Aerodynamic Computations and Comparisons With Wind Tunnel Data. *Journal of Spacecraft and Rockets*, Volume 38, No. 5, September–October 2001, p. 684-691.
<http://techreports.larc.nasa.gov/ltrs/PDF/1999/aiaa/NASA-aiaa-99-4163.pdf>
Organization RB Program No. 242-80-01
- 27 Hunter, C. A.; Viken, S. A.; Wood, R. M.; and Bauer, S. X.: Advanced Aerodynamic Design of Passive Porosity Control Effectors. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0249.
Organization RB Program No. 522-25-31
- 28 Joslin, R. D.; and Viken, S. A.: Aerodynamic Performance of an Active Flow Control Configuration Using Unstructured-Grid RANS. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0248.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0248.pdf>
Organization RB Program No. 706-32-11
- 29 Joslin, R. D.; and Viken, S. A.: Baseline Validation of Unstructured Grid Reynolds-Averaged Navier-Stokes Toward Flow Control. *Journal of Aircraft*, Volume 38, No. 2, March–April 2001, p. 389-393.
Organization RB Program No. 706-31-11

- 30 Khorrami, M. R.; Li, F.; and Choudhari, M. M.: A Novel Approach for Reducing Rotor Tip-Clearance Induced Noise in Turbofan Engines. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2148.
<http://techreports.larc.nasa.gov/ltrs/PDF//2001/aiaa/NASA-aiaa-2001-2148.pdf>
Organization RB Program No. 781-10-11
- 31 Lamar, J. E. (*Editor*): Flow-Visualization Techniques Used at High Speed by Configuration Aerodynamics Wind-Tunnel-Test Team. NASA/TM-2001-210848, April 2001, 32 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210848.pdf>
Organization RB Program No. 522-31-31
- 32 Lamar, J. E.: Vapor-Screen Determined Quantifiable Vortex Features of F-106B Aircraft at Subsonic Speeds. Presented at NATO/RTO Applied Vehicle Technology Panel Symposium on Advanced Flow Management: Vortex Flow and High Angle of Attack, May 7-10, 2001, Loen, Norway.
Organization RB Program No. 706-31-31
- 33 Lamar, J. E.: The Search for Multiple Vortices on Two Fighter Aircraft as Aided by Color. Presented at Graduate Seminar for the University of Bristol, October 4, 2001, Bristol, United Kingdom.
Organization RB Program No. 522-31-31
- 34 Lamar, J. E.: Cranked Arrow Wing (F-16XL-1) Flight Flow Physics With CFD Predictions at Subsonic and Transonic Speeds. Presented at NATO/RTO Applied Vehicle Technology Panel Symposium on Advanced Flow Management: Vortex Flow and High Angle of Attack, May 7-10, 2001, Loen, Norway. Paper No. 44.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-nato-jel.pdf>
Organization RB Program No. 706-31-31
- 35 Lamar, J. E.; Obara, C. J.; Fisher, B. D.; and Fisher, D. F.: Flight, Wind-Tunnel, and Computational Fluid Dynamics Comparison for Cranked Arrow Wing (F-16XL-1) at Subsonic and Transonic Speeds. NASA/TP-2001-210629, February 2001, 168 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp210629.pdf>
Organization RB Program No. 522-31-31
- 36 Leavitt, L. D.: Turbulence Modeling for High Speed Vehicles. Presented at NATO-RTO AVT Task Group 023 Meeting on Turbulence Modeling for High Speed Vehicles, October 7-12, 2001, Manchester, England.
Organization RB Program No. 706-51-71
- 37 Luckring, J. M.: An Overview of National Transonic Facility Investigations for High Performance Military Aerodynamics. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper 2001-0906.
Organization RB Program No. 992-20-08

- 38 Luckring, J. M.; and Ghee, T. A.: Subsonic Reynolds Effects on a Diamond Wing Configuration. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada.
Organization RB Program No. 706-31-31
- 39 Massey, S. J.; and Waithe, K. A.: Computational Analyses of Propulsion Aeroacoustics for Mixed Flow Nozzle Pylon Installation at Takeoff. (L-13395 Eagle Aeronautics, Inc. and Analytical Services and Materials, Inc.) NASA/CR-2001-211056, September 2001, 35 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211056.pdf>
Organization RB Program No. 706-32-41
- 40 Milholen, W. E., II: An Efficient Inverse Aerodynamic Design Method for Subsonic Flows. *Journal of Aircraft*, Volume 38, No. 5, September–October 2001, p. 918-923.
Organization RB Program No. 522-11-81
- 41 Mineck, R. E.: Reynolds Number Effects on the Performance of Ailerons and Spoilers. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0908.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0908.pdf>
Organization RB Program No. 992-20-08
- 42 Murphy, K. J.; Nowak, R. J.; Thompson, R. A.; Hollis, B. R.; and Prabhu, R. K.: X-33 Hypersonic Aerodynamic Characteristics. *Journal of Spacecraft and Rockets*, Volume 38, No. 5, September–October 2001, p. 670-684.
Organization RB Program No. 242-80-01
- 43 Murphy, P. C.; and Klein, V.: Estimation of Aircraft Unsteady Aerodynamic Parameters From Dynamic Wind Tunnel Testing. Presented at AIAA Atmospheric Flight Mechanics Conference, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4016.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-4016.pdf>
Organization RD Program No. 706-31-41
- 44 Nielsen, E. J.; and Anderson, W. K.: Recent Improvements in Aerodynamic Design Optimization on Unstructured Meshes. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0596.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-2001-0596.pdf>
Organization RB Program No. 522-31-21
- 45 Noonan, K. W.; Yeager, W. T., Jr.; Singleton, J. D.; Wilbur, M. L.; and Mirick, P. H.: Wind Tunnel Evaluation of a Model Helicopter Main-Rotor Blade With Slotted Airfoils at the Tip. NASA/TP-2001-211260, AMCOM/AFDD/TR-00-A-003, December 2001, 132 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp211260.pdf>
Organization RB Program No. 581-10-11

- 46 Owens, L. R., Jr.; and Wahls, R. A.: Reynolds Number Effects on a Supersonic Transport at Subsonic High-Lift Conditions. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0911.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0911.pdf>
Organization RB Program No. 992-20-08
- 47 Pack, L. G.; and Seifert, A.: Periodic Excitation for Jet Vectoring and Enhanced Spreading. *Journal of Aircraft*, Volume 38, No. 3, May-June 2001, p. 486-495.
Organization RB Program No. 522-32-31
- 48 Pack, L. G.; and Seifert, A.: Multiple Mode Actuation of a Turbulent Jet. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0735.
Organization RB Program No. 706-32-11
- 49 Pamadi, B. N.; Brauckmann, G. J.; Ruth, M.; and Fuhrmann, H. D.: Aerodynamic Characteristics, Database Development and Flight Simulation of the X-34 Vehicle. *Journal of Spacecraft and Rockets*, Volume 38, No. 3, May-June 2001, p. 334-344.
Organization RA Program No. 242-33-01
- 50 Pamadi, B. N.; Murphy, P. C.; Klein, V.; and Brandon, J. M.: Prediction of Unsteady Aerodynamic Coefficients at High Angles of Attack. Presented at AIAA Atmospheric Flight Mechanics Conference, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4077.
Organization RA Program No. 706-31-41
- 51 Parikh, P. C.: Application of a Scalable, Parallel, Unstructured-Grid-Based Navier-Stokes Solver. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2584.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2584.pdf>
Organization RB Program No. 706-51-21
- 52 Pirzadeh, S. Z.: An Assessment of the Unstructured-Grid Software TetrUSS for Drag Prediction. Presented at AIAA CFD Drag Prediction Workshop, June 9-10, 2001, Anaheim, California.
Organization RB Program No. 706-31-21
- 53 Pirzadeh, S. Z.: Vortical Flow Prediction Using an Adaptive Unstructured Grid Method. Presented at NATO/RTO Applied Vehicle Technology Panel Symposium on Advanced Flow Management: Vortex Flow and High Angle of Attack, May 7-10, 2001, Loen, Norway.
Organization RB Program No. 706-31-21
- 54 Prabhu, R. K.: Inviscid Flow Computations of Two '07 Mars Lander Aeroshell Configurations Over a Mach Number Range of 2 to 24. (NAS1-00135 Lockheed Martin Engineering & Sciences Company.) NASA/CR-2001-210852, April 2001, 27 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210852.pdf>
Organization RB Program No. 242-80-01

- 55** Prabhu, R. K.: Summary Report of the Orbital X-34 Wing Static Aeroelastic Study. (NAS1-00135 Lockheed Martin Engineering & Sciences Company.) NASA/CR-2001-210850, April 2001, 19 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210850.pdf>
Organization RB Program No. 242-80-01
- 56** Prabhu, R. K.: Inviscid Flow Computations of the Orbital Sciences X-34 Over a Mach Number Range of 1.25 to 6.0. (NAS1-00135 Lockheed Martin Engineering & Sciences Company.) NASA/CR-2001-210849, April 2001, 22 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210849.pdf>
Organization RB Program No. 242-80-01
- 57** Prabhu, R. K.: Inviscid Flow Computations of Several Aeroshell Configurations for a '07 Mars Lander. (NAS1-00135 Lockheed Martin Engineering & Sciences Company.) NASA/CR-2001-210851, April 2001, 27 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210851.pdf>
Organization RB Program No. 242-80-01
- 58** Prabhu, R. K.: An Inviscid Computational Study of Three '07 Mars Lander Aeroshell Configurations Over a Mach Number Range of 2.3 to 4.5. (NAS1-00135 Lockheed Martin Engineering & Sciences Company.) NASA/CR-2001-211266, December 2001, 47 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211266.pdf>
Organization RB Program No. 706-85-41
- 59** Prabhu, R. K.: Inviscid Flow Computations of the Shuttle Orbiter for Mach 10 and 15 and Angle of Attack 40 to 60 Degrees. (NAS1-00135 Lockheed Martin Engineering & Sciences Company.) NASA/CR-2001-211267, December 2001, 14 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211267.pdf>
Organization RB Program No. 706-85-41
- 60** Putko, M. M.; Newman, P. A.; Taylor, A. C., III; and Green, L. L.: Approach for Uncertainty Propagation and Robust Design in CFD Using Sensitivity Derivatives. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2528.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2528.pdf>
Organization RA Program No. 705-01-11
- 61** Re, R. J.; Berrier, B. L.; and Abeyounis, W. K.: Isolated Performance at Mach Numbers From 0.06 to 2.86 of Several Expendable Nozzle Concepts for Supersonic Applications. NASA/TP-2001-211259, November 2001, 199 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp211259.pdf>
Organization RB Program No. 706-17-21

- 62 Reubush, D. E.; Martin, J. G.; Robinson, J. S.; Bose, D. M.; and Strovers, B. K.: Hyper-X Stage Separation—Simulation Development and Results. Presented at 10th AIAA/NAL-NASDA-ISAS International Space Planes and Hypersonic Systems and Technologies Conference, April 24-27, 2001, Kyoto, Japan. AIAA Paper No. 2001-1802.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1802.pdf>
Organization OC Program No. 706-51-21
- 63 Rey, N. C.; Tillman, G.; Miller, R. M.; Wynosky, T.; Larkin, M.; Flamm, J. D.; and Bangert, L. S.: Shape Memory Alloy Actuation for a Variable Area Fan Nozzle. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California.
Organization RB Program No. 729-70-21
- 64 Rivers, S. M.; Wahls, R. A.; and Owens, L. R., Jr.: Reynolds Number Effects on Leading Edge Radius Variations of a Supersonic Transport at Transonic Conditions. Presented at 19th AIAA Applied Aerodynamics Conference, June 11-14, 2001, Anaheim, California. AIAA 2001-2462.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2462.pdf>
Organization RB Program No. 992-20-08
- 65 Rubinstein, R.; and Choudhari, M. M.: Inhomogeneous Weak Turbulence of Tollmein-Schlichting Waves as a Model of Transitional Flow. Presented at International Workshop on Statistical Theories and Computational Approaches to Turbulence, October 7-14, 2001, Nagoya, Japan.
Organization RB Program No. 706-31-11
- 66 Rumsey, C. L.; Allison, D. O.; Biedron, R. T.; Buning, P. G.; Gainer, T. G.; Morrison, J. H.; Rivers, S. M.; Mysko, S. J.; and Witkowski, D. P.: CFD Sensitivity Analysis of a Modern Civil Transport Near Buffet-Onset Conditions. NASA/TM-2001-211263, December 2001, 62 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211263.pdf>
Organization RB Program No. 706-21-11
- 67 Rumsey, C. L.; and Biedron, R. T.: Computation of Flow Over a Drag Prediction Workshop Wing/Body Transport Configuration Using CFL3D. NASA/TM-2001-211262, December 2001, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211262.pdf>
Organization RB Program No. 706-31-11
- 68 Rumsey, C. L.; Poirier, D. M.; Bush, R. H.; and Towne, C. E.: A User's Guide to CGNS. NASA/TM-2001-211236, October 2001, 84 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211236.pdf>
Organization RB Program No. 706-31-11

- 69 Smart, M. K.; Trexler, C. A.; and Goldman, A. L.: A Combined Experimental/Computational Investigation of a Rocket Based Combined Cycle Inlet. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0671.
 Organization RB Program No. 706-51-31
- 70 Swanson, R. C., Jr.: Towards Optimal Multigrid Efficiency for the Navier-Stokes Equations. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2574.
 Organization RB Program No. 706-31-21
- 71 Taylor, A. C., III; Green, L. L.; Newman, P. A.; and Putko, M. M.: Some Advanced Concepts in Discrete Aerodynamic Sensitivity Analysis. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2529.
 Organization RA Program No. 705-01-11
- 72 Thomas, J. L.; Diskin, B.; and Brandt, A.: Textbook Multigrid Efficiency for the Incompressible Navier-Stokes Equations: High Reynolds Number Wakes and Boundary Layers. *Computers and Fluids*, Volume 30, No. 7-8, September–November 2001, p. 853-874.
 Organization RB Program No. 706-31-21
- 73 Tinetti, A. F.; Kelly, J. J.; Bauer, S. X.; and Thomas, R. H.: On the Use of Surface Porosity to Reduce Unsteady Lift. Presented at 31st AIAA Fluid Dynamics Conference and Exhibit, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2921.
 Organization RB Program No. 522-25-31
- 74 Van Dam, C. P.; Saephan, S.; Fremaux, C. M.; and DalBello, T.: Prediction of Flows About Forebodies at High-Angle-of-Attack Dynamic Conditions. Presented at NATO/RTO Applied Vehicle Technology Panel Symposium on Advanced Flow Management: Vortex Flow and High Angle of Attack, May 7-10, 2001, Loen, Norway. In Proceedings, Paper No. MP-96-P-39.
 Organization RD Program No. 522-31-31
- 75 Wahls, R. A.: The National Transonic Facility: A Research Retrospective. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0754.
 Organization RB Program No. 992-20-80
- 76 Wahls, R. A.; Owens, L. R., Jr.; and Rivers, S. M.: Reynolds Number Effects on a Supersonic Transport at Transonic Conditions. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0912.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0912.pdf>
 Organization RB Program No. 992-20-08

- 77 Waszak, M. R.; Jenkins, L. N.; and Ifju, P. G.: Stability and Control Properties of an Aeroelastic Fixed Wing Micro Aerial Vehicle. Presented at AIAA Atmospheric Flight Mechanics Conference, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4005.
Organization RD Program No. 706-32-41
- 78 Watson, W. R.; Tracy, M. B.; Jones, M. G.; and Parrott, T. L.: Impedance Eduction in the Presence of Shear Flow. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2263.
Organization RB Program No. 781-30-14
- 79 Wood, R. M.; and Bauer, S. X.: Flying Wings/Flying Fuselages. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0311.
Organization RB Program No. 522-25-31
- 80 Wood, R. M.; Bauer, S. X.; and Hunter, C. A.: Creativity and Creative Teams. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-1111.
Organization RB Program No. 522-25-31
- 81 Woods, W. C.; Holland, S. D.; and DiFulvio, M.: Hyper-X Stage Separation Wind Tunnel Test Program. *Journal of Spacecraft and Rockets*, Volume 38, No. 6, November–December 2001, p. 811-819.
Organization RB Program No. 242-80-01

Category 03 Air Transportation and Safety

- 82 Abbott, T. S.; and Elliott, D. M.: A Simulator Evaluation of the Airborne Information for Lateral Spacing Systems. Presented at 11th International Symposium on Aviation Psychology, March 5-8, 2001, Columbus, Ohio.
Organization RD Program No. 576-02-11
- 83 Abbott, T. S.; and Elliott, D. M.: Simulator Evaluation of Airborne Information for Lateral Spacing (AILS) Concept. NASA/TP-2001-210665, March 2001, 71 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp210665.pdf>
Organization RD Program No. 576-02-11
- 84 Adams, C. A.; Hwoschinsky, P. V.; and Adams, R. J.: Analysis of Adverse Events in Identifying GPS Human Factors Issues. Presented at 11th International Symposium on Aviation Psychology, March 5-8, 2001, Columbus, Ohio.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-11isap-caa.pdf>
Organization RD Program No. 706-82-22

- 85** Chamberlain, J. P.; and Latorella, K. A.: Convective Weather Detection by General Aviation Pilots With Conventional and Data-Linked Graphical Weather Information Sources. Presented at 20th Digital Avionics Systems Conference, October 14-18, 2001, Daytona Beach, Florida.
Organization RD Program No. 728-40-10
- 86** Comstock, J. R., Jr.; Glaab, L. J.; Prinzel, L. J., III; and Elliott, D. M.: Can Effective Synthetic Vision System Displays Be Implemented on Limited Size Display Spaces? Presented at 11th International Symposium on Aviation Psychology, March 5-8, 2001, Columbus, Ohio. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-11isap-jrc.pdf>
Organization RD Program No. 728-60-10
- 87** Donohue, G. L.; and Rutishauser, D. K.: The Effect of Aircraft Wake Vortex Separation on Air Transportation Capacity. Presented at 4th USA/Europe Air Traffic Management R&D Seminar, December 3-7, 2001, Santa Fe, New Mexico. Paper No. 22.
Organization RD Program No. 727-04-01
- 88** Eure, K. W.: Fault Detection of a Flight Control Computer in a Harsh Electromagnetic Environment. Presented at 20th Digital Avionics Systems Conference, October 14-18, 2001, Daytona Beach, Florida.
Organization RD Program No. 728-30-10
- 89** Hinton, D. A.: Description of Selected Algorithms and Implementation Details of a Concept-Demonstration Aircraft Vortex Spacing System (AVOSS). NASA/TM-2001-21102, June 2001, 70 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211027.pdf>
Organization RD Program No. 576-02-11
- 90** Holmes, B. J.: Small Aircraft Transportation System Overview. Presented at SATS Exposition, May 4, 2001, Weatherford, Oklahoma.
Organization OD Program No. 786-80-80
- 91** Holmes, B. J.: Integrated Communications, Navigation, Surveillance Systems of the Future. Presented at Integrated Communications, Navigation Surveillance NASA Workshop, May 1, 2001, Cleveland, Ohio.
Organization OD Program No. 786-80-80
- 92** Holmes, B. J.; Rutan, B.; and Fallows, J.: Life After Airliners V. Presented at Seminar at Experimental Aircraft Association AirVenture Convention, July 29, 2001, Oshkosh, Wisconsin.
Organization OD Program No. 786-80-80
- 93** Houser, S. A.: Aviation Safety Simulation Model—User's Guide. (NAS2-14361 Logistics Management Institute.) NASA/CR-2001-211022, June 2001, 64 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211022.pdf>
Organization RA Program No. 706-87-21

- 94 Hueschen, R. M.; Hankins, W. W., III; and Barker, L. K.: Rollout and Turnoff (ROTO) Guidance and Information Displays— Effect on Runway Occupancy Time in Simulated Low-Visibility Landings. NASA/TM-2001-211057, December 2001, 22 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211057.pdf>
 Organization RD Program No. 728-60-30

- 95 Jones, D. R.; Quach, C. C.; and Young, S. D.: Runway Incursion Prevention System— Demonstration and Testing at the Dallas/Fort Worth International Airport. Presented at 20th Digital Avionics Systems Conference, October 14-18, 2001, Daytona Beach, Florida.
 Organization RD Program No. 728-60-30

- 96 Koppen, D. M.: A Comparison of Bulk Cable Injection to Reverberation Chamber Methods on a Fault Tolerant Flight Control Computer. Presented at 20th Digital Avionics Systems Conference, October 14-18, 2001, Daytona Beach, Florida.
 Organization RD Program No. 706-62-11

- 97 Latorella, K. A.; and Chamberlain, J. P.: Decision-Making in Flight With Different Convective Weather Sources: Preliminary Results. Presented at 11th International Symposium on Aviation Psychology, March 5-8, 2001, Columbus, Ohio.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-11isap-kal.pdf>
 Organization RD Program No. 728-40-10

- 98 Latorella, K. A.; Pliske, R.; Hutton, R.; and Chrenka, J.: Cognitive Task Analysis of Business Jet Pilots' Weather Flying Behaviors: Preliminary Results. NASA/TM-2001-211034, July 2001, 129 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211034.pdf>
 Organization RD Program No. 728-40-10

- 99 Mondoloni, S.; and Conway, S. R.: An Airborne Conflict Resolution Approach Using a Genetic Algorithm. Presented at AIAA Guidance, Navigation, and Control Conference & Exhibit, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4054.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-4054.pdf>
 Organization RD Program No. 727-01-26

- 100 Nelson, J. M.; Kawai, R. T.; and Gregg, R. D.: A Study of the Economic Benefit Potential of Intermodal Transports. (NAS1-20267 Boeing Commercial Airplane Group.) NASA/CR-2001-210847, April 2001, 17 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210847.pdf>
 Organization RA Program No. 522-41-11

- 101 O'Connor, C. J.; and Rutishauser, D. K.: Enhanced Airport Capacity Through Safe, Dynamics Reductions in Aircraft Separation: NASA's Aircraft Vortex Spacing System (AVOSS). NASA/TM-2001-211052, August 2001, 15 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211052.pdf>
 Organization RD Program No. 727-01-26

- 102 O'Connor, C. J.; and Rutishauser, D. K.: Enhanced Airport Capacity Through Safe, Dynamic Reductions in Aircraft Separation: NASA's Aircraft Vortex Spacing System. *Journal of Air Traffic Control*, Volume 43, No. 3, October–December 2001, p. 4-10.
Organization RD Program No. 767-01-26
- 103 Pettit, D.; and Turnbull, A.: General Aviation Aircraft Reliability Study. (NAS1-96013 FDC/ NYMA, Inc.) NASA/CR-2001-210647, February 2001, 113 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210647.pdf>
Organization SC Program No. 323-71-01
- 104 Rutishauser, D. K.; and O'Connor, C. J.: The NASA Aircraft Vortex Spacing System (AVOSS): Concept Demonstration Results and Future Direction. Presented at Air Traffic Control Association's 46th Annual Meeting International Technical Program and Exhibits, November 4-8, 2001, Washington, DC. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-46atca-dkr.pdf>
Organization RD Program No. 727-01-26
- 105 Rutishauser, D. K.; and O'Connor, C. J.: Aircraft Wake Vortex Spacing System (AVOSS) Performance Update and Validation Study. NASA/TM-2001-211240, October 2001, 25 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211240.pdf>
Organization RD Program No. 728-40-30
- 106 Stark, J. M.; Comstock, J. R., Jr.; Prinzel, L. J., III; Burdette, D. W.; and Scerbo, M. W.: A Preliminary Examination of Situation Awareness and Pilot Performance in a Synthetic Vision Environment. Presented at 45th Annual Meeting of the Human Factors and Ergonomics Society, October 8-12, 2001, Minneapolis/St. Paul, Minnesota.
Organization RD Program No. 728-60-10
- 107 Stewart, E. C.: A Sensor-Independent Gust Hazard Metric. Presented at AIAA Atmospheric Flight Mechanics Conference, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4135.
Organization RD Program No. 728-40-30
- 108 Trujillo, A. C.: Response Times in Correcting Non-Normal System Events When Collocating Status, Alerts and Procedures, and Controls. Presented at IEE Conference on People in Control, June 18-21, 2001, Manchester, United Kingdom. In Proceedings, Conference Publication 481.
Organization RD Program No. 706-62-21
- 109 Trujillo, A. C.: Experience and Grouping Affects When Handling Non-Normal Situations. Presented at 45th Annual Meeting of the Human Factors and Ergonomics Society, October 8-12, 2001, Minneapolis/St. Paul, Minnesota.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-45hfes-act.pdf>
Organization RD Program No. 706-62-21

- 110** Uijt de Haag, M.; Sayre, J.; Campbell, J.; Young, S. D.; and Gray, R.: Flight Test Results of a Synthetic Vision Elevation Database Integrity Monitor. Presented at SPIE's 2001 AeroSense Symposium, April 16-20, 2001, Orlando, Florida.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-spiaero-mu.pdf>
Organization RD Program No. 728-60-30
- 111** Williams, D. M.; Waller, M. C.; Koelling, J. H.; Burdette, D. W.; Capron, W. R.; Barry, J. S.; Gifford, R. B.; and Doyle, T. M.: Concept of Operations for Commercial and Business Aircraft Synthetic Vision Systems—Version 1.0. NASA/TM-2001-211058, December 2001, 89 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211058.pdf>
Organization RD Program No. 728-60-10
- 112** Wing, D. J.; Adams, R. J.; Barmore, B. E.; and Moses, D.: Airborne Use of Traffic Intent Information in a Distributed Air-Ground Traffic Management Concept: Experiment Design and Preliminary Results. Presented at 4th USA/Europe Air Traffic Management R&D Seminar, December 3-7, 2001, Santa Fe, New Mexico.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-4atms-djw.pdf>
Organization RD Program No. 727-01-26
- 113** Wing, D. J.; Adams, R. J.; Duley, J. A.; Legan, B. M.; Barmore, B. E.; and Moses, D.: Airborne Use of Traffic Intent Information in a Distributed Air-Ground Traffic Management Concept: Experiment Design and Preliminary Results. NASA/TM-2001-211254, November 2001, 31 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211254.pdf>
Organization RD Program No. 727-01-26
- 114** Wong, D. T.; Kramer, L. J.; and Norman, R. M.: Two New Aircraft Traffic Surveillance Symbology Concepts: Range Filter and Inboard Field-of-View Symbology. NASA/TM-2001-211037, September 2001, 35 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211037.pdf>
Organization RD Program No. 728-60-10
- 115** Wong, D. T.; Kramer, L. J.; and Norman, R. M.: Two Aircraft Head-Up Traffic Surveillance Symbology Issues: Range Filter and Inboard Field-of-View Symbology. Presented at 11th International Symposium on Aviation Psychology, March 5-8, 2001, Columbus, Ohio.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-11isap-dtw.pdf>
Organization RD Program No. 728-60-10
- 116** Young, S. D.; and Jones, D. R.: Runway Incursion Prevention—A Technology Solution. Presented at International Air Safety Seminar (IASS) 2001, November 5-8, 2001, Athens, Greece.
Organization RD Program No. 728-60-30

- 117 Yuchnovicz, D. E.; Novacek, P. F.; Burgess, M. A.; Heck, M. L.; and Stokes, A. F.: Use of a Data-Linked Weather Information Display and Effects on Pilot Navigation Decision Making in a Piloted Simulation Study. (NCA1-130 Research Triangle Institute.) NASA/CR-2001-211047, August 2001, 187 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211047.pdf>
 Organization RD Program No. 728-40-10
- 118 Yuchnovicz, D. E.; Williams, L. J.; and DiCarlo, D. J.: The Digital Information Facility. Presented at 20th Digital Avionics Systems Conference, October 14-18, 2001, Daytona Beach, Florida.
 Organization RD Program No. 706-82-11
- 119 Zak, J. A.; and Rodgers, W. G., Jr.: Preprocessing for Eddy Dissipation Rate and TKE Profile Generation. (NAS1-96014 Vigyan, Inc., and Lockheed Martin.) NASA/CR-2001-210834, March 2001, 14 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210834.pdf>
 Organization RD Program No. 728-40-30
- 120 Zak, J. A.; Rodgers, W. G., Jr.; and Nolf, S. R.: Operational Performance of Sensor Systems Used to Determine Atmospheric Boundary Layer Properties as Part of the NASA Aircraft Vortex Spacing System Project. (NAS1-96014 Vigyan, Inc., and Lockheed Martin.) NASA/CR-2001-210835, March 2001, 37 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210835.pdf>
 Organization RD Program No. 728-40-30

Category 04 Aircraft Communications and Navigation

- 121 Timmerman, J.: Runway Incursion Prevention System ADS-B and DGPS Data Link Analysis Dallas—Ft. Worth International Airport. (NCA1-125 Rockwell Collins.) NASA/CR-2001-211242, November 2001, 40 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211242.pdf>
 Organization RD Program No. 728-60-30

Category 05 Aircraft Design, Testing and Performance

- 122 Bark, L. W.; and Lyle, K. H.: Test and Analysis Correlation for Application to Crash Simulations. Presented at 3rd International KRASH Users' Seminar, January 8-10, 2001, Tempe, Arizona.
 Organization RC Program No. 577-50-10
- 123 Bartels, R. E.: A Study of Grid Resolution, Transition and Turbulence Model Using the Transonic Simple Straked Delta Wing. Presented at CEAS/AIAA/AIAE International Forum on Aeroelasticity and Structural Dynamics, June 5-7, 2001, Madrid, Spain.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ifasd-reb.pdf>
 Organization RC Program No. 706-31-41

- 124 Bellinger, D.; and Pototzky, A. S.: A Study of Aerodynamic Matrix Numerical Condition. Presented at 2001 Worldwide Aerospace Conference & Technology Showcase, September 24-26, 2001, Toulouse, France.
Organization RC Program No. 706-13-41
- 125 Beran, P. S.; and Silva, W. A.: Reduced-Order Modeling: New Approaches for Computational Physics. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0853.
Organization RC Program No. 706-31-41
- 126 Billings, M. D.; Fasanella, E. L.; and Kellas, S.: Impact Test and Simulation of Energy Absorbing Concepts for Earth Entry Vehicle. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1602.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1602.pdf>
Organization RC Program No. 728-50-10
- 127 Bobbitt, C. W.; and Everhart, J. L.: Status of the National Transonic Facility Characterization. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0755.
Organization RB Program No. 706-31-31
- 128 Boitnott, R. L.; and Jones, L. E.: NASA-Langley Research Center's Impact Dynamics Research Facility Full-Scale Crash Test Procedures. Presented at 3rd International KRASH Users' Seminar, January 8-10, 2001, Tempe, Arizona.
Organization RC Program No. 577-50-10
- 129 Burnham, J. K.; Pitt, D. M.; Henderson, D. A.; and Moses, R. W.: An Advanced Buffet Load Alleviation System. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1666.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1666.pdf>
Organization RC Program No. 706-25-31
- 130 Butterfield, A. J.: Data Mining of NASA Boeing 737 Flight Data—Frequency Analysis of In-Flight Recorded Data. (NAS1-96013 NYMA, Inc.) NASA/CR-2001-210641, March 2001, 27 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210641.pdf>
Organization RF Program No. 706-61-11
- 131 Caplin, J.; Ray, A.; and Joshi, S. M.: Damage-Mitigating Control of Aircraft for Enhanced Structural Durability. *IEEE Transactions on Aerospace and Electronic Systems*, Volume 37, No. 3, July 2001, p. 849-862.
Organization RD Program No. 274-00-97

- 132 Cole, S. R.: Experimental Aeroelasticity. Presented at NATO Course on Aeroelasticity, October 1-5, 2001, Ankara, Turkey.
Organization RC Program No. 706-31-41
- 133 Edwards, J. W.; Schuster, D. M.; Spain, C. V.; Keller, D. F.; and Moses, R. W.: MAVRIC Flutter Model Transonic Limit Cycle Oscillation Test. NASA/TM-2001-210877, May 2001, 20 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210877.pdf>
Organization RC Program No. 706-31-41
- 134 Edwards, J. W.; Schuster, D. M.; Spain, C. V.; Keller, D. F.; and Moses, R. W.: MAVRIC Flutter Model Transonic Limit Cycle Oscillation Test. Presented at CEAS/AIAA/AIAE International Forum on Aeroelasticity and Structural Dynamics, June 5-7, 2001, Madrid, Spain.
Organization RC Program No. 706-31-41
- 135 Fasanella, E. L.; and Billings, M. D.: Dynamic Finite Element Predictions for Mars Sample Return Cellular Impact Test #4. NASA/TM-2001-211023, ARL-TR-2539, June 2001, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211023.pdf>
Organization RC Program No. 728-50-10
- 136 Fasanella, E. L.; Boitnott, R. L.; Lyle, K. H.; and Jackson, K. E.: Full-Scale Crash Test and Simulation of a Composite Helicopter. *International Journal of Crashworthiness*, Volume 6, No. 4, 2001, p. 485-498.
Organization RC Program No. 577-50-10
- 137 Fasanella, E. L.; and Jackson, K. E.: Crash Simulation of a Vertical Drop Test of a B737 Fuselage Section With Auxiliary Fuel Tank. Presented at Third Triennial International Fire & Cabin Safety Research Conference, October 22-25, 2001, Atlantic City, New Jersey.
<http://techreports.larc.nasa.gov/ltrs/PDF/NASA-2001-3ifcsrc-elf.pdf>
Organization RC Program No. 728-50-10
- 138 Fasanella, E. L.; Jackson, K. E.; Jones, Y. T.; Frings, G.; and Vu, T.: Crash Simulation of a Boeing 737 Fuselage Section Vertical Drop Test. Presented at 3rd International KRASH Users' Seminar, January 8-10, 2001, Tempe, Arizona. In Proceedings, Session 7, Paper No. 2.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-3ikus-elf.pdf>
Organization RC Program No. 577-50-10
- 139 Fasanella, E. L.; Jones, Y. T.; Knight, N. F., Jr.; and Kellas, S.: Low Velocity Earth-Penetration Test and Analysis. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1388.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1388.pdf>
Organization RC Program No. 728-50-10

- 140** Florance, J. R.; and Rivera, J. A., Jr.: Sidewall Mach Number Distributions for the NASA Langley Transonic Dynamics Tunnel. NASA/TM-2001-211019, June 2001, 78 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211019.pdf>
Organization RC Program No. 706-31-41
- 141** Gloss, B. B.: The Wright Brothers and the Perennial Problems of Flight. Presented at International Flight Symposium and Festival, October 22-25, 2001, Raleigh, North Carolina.
Organization AI Program No. 282-10-01
- 142** Grierson, A. E.; and Jones, L. E.: Recommendations for Injury Prevention in Transport Aviation Accidents. Presented at Advances in Aviation Safety Conference & Exhibition, September 11-13, 2001, Seattle, Washington. Paper No. 2001-01-2658.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-aasce-aeg.pdf>
Organization RC Program No. 728-50-10
- 143** Heeg, J.: Developing Methods for Comparison of Static Aeroelastic Characteristics Among Flight, Wind Tunnel and Analytical Data. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington.
Organization RC Program No. 522-31-31
- 144** Heeg, J.; and Dowell, E. H.: Characterizing Aeroelastic Systems Using Eigenanalysis, Explicitly Retaining the Aerodynamic Degrees of Freedom. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1580.
Organization RC Program No. 706-31-31
- 145** Heeg, J.; and Dowell, E. H.: Experimental Investigation of Unusual Aeroelastic Divergence Mechanism. Presented at CEAS/AIAA/AIAE International Forum on Aeroelasticity and Structural Dynamics, June 5-7, 2001, Madrid, Spain.
Organization RC Program No. 706-31-31
- 146** Hernandez, N. D.; Nixon, M. W.; and Yeager, W. T., Jr.: Requirements for Development of a Sequential High-Resolution Blade and Hub Loads Data Set for Rotorcraft Analysis Validation. Presented at The Ninth International Workshop on Aeroelasticity of Rotorcraft Systems, October 22-24, 2001, Ann Arbor, Michigan.
Organization RC Program No. 712-10-11
- 147** Horner, G. C.; Teter, J. E., Jr.; and Robbins, W. E.: Flex Patch, a Highly Flexible Piezoceramic Composite With Attached Electrical Leads. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California.
Organization RF Program No. 755-06-00

- 148** Horta, L. G.; Reaves, M. C.; and Voracek, D. F.: A Probabilistic Approach to Model Update. Presented at First Annual Probabilistic Methods Conference, June 18-19, 2001, Newport Beach, California.
 Organization RC Program No. 706-32-31
- 149** Horta, L. G.; Reaves, M. C.; and Voracek, D. F.: A Probabilistic Approach to Model Update. NASA/TM-2001-211039, June 2001, 17 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211039.pdf>
 Organization RC Program No. 706-32-31
- 150** Huttshell, L. J.; Schuster, D. M.; Volk, J.; Giesing, J. P.; and Love, M.: Evaluation of Computational Aeroelasticity Codes for Loads and Flutter. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0569.
 Organization RC Program No. 706-31-41
- 151** Iyer, V.; and Everhart, J. L.: Application of Pressure-Based Wall Correction Methods to Two NASA Langley Wind Tunnels. Presented at 19th AIAA Applied Aerodynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2472.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2472.pdf>
 Organization RB Program No. 706-31-31
- 152** Jackson, K. E.; and Fasanella, E. L.: Crash Simulation of a Vertical Drop Test of a B737 Fuselage Section With Overhead Bins and Luggage. Presented at Third Triennial International Fire & Cabin Safety Research Conference, October 22-25, 2001, Atlantic City, New Jersey.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-3ifcsrc-kej.pdf>
 Organization RC Program No. 728-50-10
- 153** Johnson, J. P.; Stouffer-Coston, V.; Long, D.; and Gribko, J.: Evaluation of the National Throughput Benefits of the Civil Tilt Rotor. (NAS2-14361 Logistics Management Institute.) NASA/CR-2001-211055, September 2001, 177 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211055.pdf>
 Organization RA Program No. 706-87-21
- 154** Jones, H. E.; and Kunz, D. L.: Comprehensive Modeling of the Apache With CAMRAD II. Presented at AHS International Structures Specialists' Meeting, October 30–November 1, 2001, Williamsburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ahsiss-hej.pdf>
 Organization RB Program No. 722-59-87
- 155** Kelkar, A. G.; and Joshi, S. M.: An Approach to Acoustic Noise Control via Passivity Techniques. Presented at 2001 ASME International Mechanical Engineering Congress & Exposition, November 11-16, 2001, New York, New York. In Proceedings, Volume 2.
 Organization RD Program No. 706-62-21

- 156** Kilgore, W. A.; Balakrishna, S.; Bobbitt, C. W.; and Adcock, J. B.: Recent National Transonic Facility Test Process Improvements. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0756.
Organization RB Program No. 706-31-31
- 157** Kilgore, W. A.; Balakrishna, S.; and Butler, D. H.: Reduction of Tunnel Dynamics at the National Transonic Facility. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-1162.
Organization RB Program No. 706-31-31
- 158** Kodiyalam, S.: Multidisciplinary Aerospace Systems Optimization—Computational AeroSciences (CAS) Project. (NAS1-99069 Lockheed Martin Space Systems Company.) NASA/CR-2001-211053, September 2001, 26 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211053.pdf>
Organization RA Program No. 735-10-31
- 159** Kudva, J. N.; Sanders, B.; Pinkerton-Florance, J. L.; and Garcia, E.: Overview of the DARPA/AFRL/NASA Smart Wing Phase 2 Program. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California.
Organization RC Program No. 706-32-31
- 160** Kunz, D. L.; and Jones, H. E.: Modeling and Simulation of the Apache Rotor System in CAMRAD II. Presented at AHS International Structures Specialists' Meeting, October 30–November 1, 2001, Williamsburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ahsiss-dlk.pdf>
Organization RB Program No. 722-59-87
- 161** Kvaternik, R. G.; Piatak, D. J.; Nixon, M. W.; Langston, C. W.; Singleton, J. D.; Bennett, R. L.; and Brown, R.: An Experimental Evaluation of Generalized Predictive Control for Tiltrotor Aeroelastic Stability Augmentation in Airplane Mode of Flight. Presented at AHS International 57th Annual Forum and Technology Display, May 9-11, 2001, Washington, DC.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-57ahs-rgk.pdf>
Organization RC Program No. 712-10-11
- 162** Long, D.; Lee, D. A.; Johnson, J. P.; and Kostiuk, P. F.: A Small Aircraft Transportation System (SATS) Demand Model. (NAS2-14361 Logistics Management Institute.) NASA/CR-2001-210874, June 2001, 77 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210874.pdf>
Organization RA Program No. 552-99-11
- 163** Long, D.; Stouffer-Coston, V.; Kostiuk, P. F.; Kula, R.; and Fernandez, B.: Integrating LMINET with TAAM and SIMMOD—A Feasibility Study. (NAS2-14361 Logistics Management Institute.) NASA/CR-2001-210875, June 2001, 57 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210875.pdf>
Organization RA Program No. 522-99-11

- 164** Lyle, K. H.; and Bark, L. W.: Data Reduction and Its Impact on Test-Analysis Correlation. Presented at Third Triennial International Fire & Cabin Safety Research Conference, October 22-25, 2001, Atlantic City, New Jersey.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-3ifcsrc-khl.pdf>
 Organization RC Program No. 728-50-10
- 165** Lyle, K. H.; Bark, L. W.; and Jackson, K. E.: Evaluation of Test/Analysis Correlation Methods for Crash Applications. Presented at AHS International 57th Annual Forum and Technology Display, May 9-11, 2001, Washington, DC.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-57ahs-khl.pdf>
 Organization RC Program No. 728-50-10
- 166** Marzocca, P.; Librescu, L.; and Silva, W. A.: Aeroelastic Response of Swept Aircraft Wings in a Compressible Flow Field. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0714.
 Organization RC Program No. 706-31-41
- 167** Marzocca, P.; Librescu, L.; and Silva, W. A.: Volterra Series Approach for Nonlinear Aeroelastic Response of 2-D Lifting Surfaces. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1459.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1459.pdf>
 Organization RC Program No. 706-25-01
- 168** McClinton, C. R.; and Volland, R. T.: Hyper-X Program Status. Presented at 15th International Symposium on Airbreathing Engines, September 2-7, 2001, Bangalore, India. Paper No. ISABE-2001-1071.
 Organization OC Program No. 705-51-21
- 169** Morelli, E. A.; and DeLoach, R.: Response Surface Modeling Using Multivariate Orthogonal Functions. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0168.
 Organization RD Program No. 706-62-21
- 170** Moses, R. W.; Wieseman, C. D.; Bent, A.; and Pizzochero, A.: Evaluation of New Actuators in a Buffet Loads Environment. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California. In Proceedings, Paper No. 4332-02.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-8spie-rwm.pdf>
 Organization RC Program No. 522-32-31

- 171 Moses, R. W.; Wiesenman, C. D.; Bent, A.; and Pizzochero, A.: Evaluation of New Actuators in a Buffet Loads Environment. Presented at CEAS/AIAA/AIAE International Forum on Aeroelasticity and Structural Dynamics, June 5-7, 2001, Madrid, Spain. In Proceedings, Volume II, p. 425-436.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ifasd-rwm.pdf>
Organization RC Program No. 522-32-31
- 172 Nixon, M. W.; Langston, C. W.; Singleton, J. D.; Piatak, D. J.; Kvaternik, R. G.; Bennett, R. L.; and Brown, R.: Experimental Investigations of Generalized Predictive Control for Tiltrotor Stability Augmentation. Presented at CEAS/AIAA/AIAE International Forum on Aeroelasticity and Structural Dynamics, June 5-7, 2001, Madrid, Spain.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ifasd-mwn.pdf>
Organization RC Program No. 712-10-11
- 173 Nixon, M. W.; Langston, C. W.; Singleton, J. D.; Piatak, D. J.; Kvaternik, R. G.; Corso, L. M.; and Brown, R.: Aeroelastic Stability of a Soft-Inplane Gimballed Tiltrotor Model in Hover. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1533.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1533.pdf>
Organization RC Program No. 712-10-11
- 174 Nixon, M. W.; Piatak, D. J.; Masarati, P.; and Mantegazza, P.: Tiltrotor Soft-Inplane Aeroelastic Response Prediction Using Two Analysis Methods: A New Multibody Dynamics Formulation and a 'Standard' Comprehensive Formulation. Presented at The Ninth International Workshop on Aeroelasticity of Rotorcraft Systems, October 22-24, 2001, Ann Arbor, Michigan.
Organization RC Program No. 712-10-11
- 175 Pappa, R. S.; Lassiter, J. O.; and Ross, B. P.: Structural Dynamics Experimental Activities in Ultra-Lightweight and Inflatable Space Structures. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1263.
Organization RC Program No. 755-06-00
- 176 Paris, F.: A Study of Failure Criteria of Fibrous Composite Materials. (NCC1-24 George Washington University, JIAFS.) NASA/CR-2001-210661, March 2001, 76 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210661.pdf>
Organization RC Program No. 728-50-10
- 177 Parker, P. A.; Morton, M.; Draper, N.; and Line, W.: A Single-Vector Force Calibration Method Featuring the Modern Design of Experiments. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0170.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0170.pdf>
Organization RB Program No. 992-35-12

- 178** Piatak, D. J.; Kvaternik, R. G.; Nixon, M. W.; Langston, C. W.; Bennett, R. L.; and Brown, R.: A Wind-Tunnel Parametric Investigation of Tiltrotor Stability Whirl-Flutter Stability Boundaries. Presented at AHS International 57th Annual Forum and Technology Display, May 9-11, 2001, Washington, DC.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-57ahs-djp.pdf>
Organization RC Program No. 712-10-11
- 179** Pototzky, A. S.: Simply Implementing Gust Filters for Simulation Applications. Presented at Gust Specialists' Workshop, June 7-8, 2001, Ottawa, Canada.
Organization RC Program No. 710-10-11
- 180** Pritchard, J. I.: An Overview of Landing Gear Dynamics. *Journal of Aircraft*, Volume 38, No. 1, January–February 2001, p. 130-137.
Organization RC Program No. 522-18-11
- 181** Reaves, M. C.; and Horta, L. G.: Test Cases for Modeling and Validation of Structures With Piezoelectric Actuators. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1466.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1466.pdf>
Organization RC Program No. 706-32-31
- 182** Rivers, N. A.; Van Dam, C. P.; Brown, P. W.; and Rivers, R. A.: Flight Investigation of the Effects of Pressure-Belt Tubing Size on Measured Pressure Distributions. NASA/TM-2001-209857, November 2001, 46 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm209857.pdf>
Organization RD Program No. 706-62-21
- 183** Salas, A. O.; Walsh, J. L.; Mason, B. H.; Weston, R. P.; Townsend, J. C.; Samareh, J. A.; and Green, L. L.: HSCT4.0 Application—Software Requirements Specification. NASA/TM-2001-210867, May 2001, 77 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210867.pdf>
Organization RA Program No. 725-10-11
- 184** Schuster, D. M.: Aerodynamic Measurements on a Large Splitter Plate for the NASA Langley Transonic Dynamics Tunnel. NASA/TM-2001-210828, March 2001, 42 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210828.pdf>
Organization RC Program No. 706-31-41
- 185** Scott, R. C.: An Overview of the NASA Benchmark Active Controls Technology Program. Presented at CEAS/AIAA/AIAE International Forum on Aeroelasticity and Structural Dynamics, June 5-7, 2001, Madrid, Spain.
Organization RC Program No. 706-32-31

- 186** Silva, W. A.; Beran, P. S.; Cesnik, C. E.; Guendel, R. E.; Kurdila, A.; Prazenica, R.; Librescu, L.; Marzocca, P.; and Raveh, D. E.: Reduced-Order Modeling: Cooperative Research and Development at the NASA Langley Research Center. Presented at CEAS/AIAA/AIAE International Forum on Aeroelasticity and Structural Dynamics, June 5-7, 2001, Madrid, Spain. IFASD 2001-008.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ifasd-was.pdf>
Organization RC Program No. 706-25-01
- 187** Silva, W. A.; and Raveh, D. E.: Development of Unsteady Aerodynamic State-Space Models From CFD-Based Pulse Responses. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1213.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1213.pdf>
Organization RC Program No. 706-25-01
- 188** Spearman, M. L.: An Airplane Design Having a Wing With a Fuselage Attached to Each Tip. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0536.
Organization RA Program No. 522-17-21
- 189** Spitz, W.; Golaszewski, R.; Berardino, F.; and Johnson, J. P.: Development Cycle Time Simulation For Civil Aircraft. (NAS2-14361 Logistics Management Institute.) NASA/CR-2001-210658, January 2001, 92 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210658.pdf>
Organization RA Program No. 522-99-11
- 190** Stouffer-Coston, V.; Johnson, J. P.; and Gribko, J.: Civil Tiltrotor Feasibility Study for the New York and Washington Terminal Areas. (NAS2-14361 Logistics Management Institute.) NASA/CR-2001-210659, January 2001, 80 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210659.pdf>
Organization RA Program No. 522-99-11
- 191** Tang, D.; Kholodar, D.; Juang, J-N.; and Dowell, E. H.: System Identification and Pod Method Applied to Unsteady Aerodynamics. NASA/TM-2001-211243, December 2001, 29 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211243.pdf>
Organization RC Program No. 706-32-21
- 192** Tang, L.; Bartels, R. E.; Chen, P. C.; and Liu, D. D.: Simulation of Transonic Limit Cycle Oscillations Using a CFD Time-Marching Method. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1290.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1290.pdf>
Organization RC Program No. 706-31-41

- 193** Underwood, P. J.; Everhart, J. L.; and DeLoach, R.: National Transonic Facility Wall Pressure Calibration Using Modern Design of Experiments. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0171.

Organization RB

Program No. 706-31-31

- 194** Walker, E. L.; Everhart, J. L.; and Iyer, V.: Sensitivity Study of the Wall Interference Correction System (WICS) for Rectangular Tunnels. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0159.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0159.pdf>

Organization RB

Program No. 706-31-31

- 195** Walker, E. L.; Everhart, J. L.; and Iyer, V.: Parameter Sensitivity Study of the Wall Interference Correction System (WICS). Presented at 19th AIAA Applied Aerodynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2421.

Organization RB

Program No. 706-31-31

Category 06 Aircraft Instrumentation

- 196** Novacek, P. F.; Burgess, M. A.; Heck, M. L.; and Stokes, A. F.: The Effect of Ownship Information and NexRad Resolution on Pilot Decision Making in the Use of a Cockpit Weather Information Display. (NAS1-99074 RTI International.) NASA/CR-2001-210845, December 2001, 170 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210845.pdf>

Organization RD

Program No. 728-40-10

Category 07 Aircraft Propulsion and Power

- 197** Albertson, C. W.; and Emami, S.: Alleviation of Facility/Engine Interactions in an Open-Jet Scramjet Test Facility. Presented at 37th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 8-11, 2001, Salt Lake City, Utah. AIAA 2001-3677.

Organization RB

Program No. 706-51-31

- 198** Bakos, R. J.; Tsai, C-Y.; Rogers, R. C.; and Shih, A. T.: Hyper-X Mach 10 Engine Flowpath Development: Fifth Entry Test Conditions and Methodology. Presented at 10th AIAA/NAL-NASDA-ISAS International Space Planes and Hypersonic Systems and Technologies Conference, April 24-27, 2001, Kyoto, Japan. AIAA Paper No. 2001-1814.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1814.pdf>

Organization RB

Program No. 706-51-31

- 199** Biedron, R. T.; Rumsey, C. L.; Podboy, G. G.; and Dunn, M. H.: Predicting the Rotor-Stator Interaction Acoustics of a Ducted Fan Engine. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0664.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0664.pdf>

Organization RB

Program No. 781-10-11

- 200** Huebner, L. D.; Rock, K. E.; Ruf, E. G.; Witte, D. W.; and Andrews, E. H.: Hyper-X Flight Engine Ground Testing for Flight Risk Reduction. *Journal of Spacecraft and Rockets*, Volume 38, No. 6, November–December 2001, p. 844-852.
Organization RB Program No. 706-51-31
- 201** Huebner, L. D.; Rock, K. E.; Ruf, E. G.; Witte, D. W.; and Andrews, E. H.: Hyper-X Flight Engine Ground Testing for X-43 Flight Risk Reduction. Presented at 10th AIAA/NAL-NASDA-ISAS International Space Planes and Hypersonic Systems and Technologies Conference, April 24-27, 2001, Kyoto, Japan. AIAA Paper No. 2001-1809.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1809.pdf>
Organization RB Program No. 706-51-31
- 202** Kumar, A.; Drummond, J. P.; McClinton, C. R.; and Hunt, J. L.: Research in Hypersonic Airbreathing Propulsion at NASA Langley Research Center. Presented at 15th International Symposium on Airbreathing Engines, September 2-7, 2001, Bangalore, India. Paper No. ISABE 2001-1007.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-15isabe-ak.pdf>
Organization RB Program No. 705-51-31
- 203** McClinton, C. R.; Andrews, E. H.; and Hunt, J. L.: Engine Development for Space Access: Past, Present and Future. Presented at 15th International Symposium on Airbreathing Engines, September 2-7, 2001, Bangalore, India. Paper No. ISABE 2001-1074.
Organization OC Program No. 705-51-21
- 204** McClinton, C. R.; Rausch, V. L.; Sitz, J.; and Reukauf, P.: Hyper-X Program Status. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0828.
Organization OC Program No. 706-51-21
- 205** McClinton, C. R.; Reubush, D. E.; Sitz, J.; and Reukauf, P.: Hyper-X Program Status. Presented at 10th AIAA/NAL-NASDA-ISAS International Space Planes and Hypersonic Systems and Technologies Conference, April 24-27, 2001, Kyoto, Japan. AIAA Paper No. 2001-1910.
Organization OC Program No. 705-51-21
- 206** Rausch, V. L.; McClinton, C. R.; and Sitz, J.: Hyper-X: Results from the First Mach 7 Scramjet Flight. Presented at 52nd International Astronautical Congress, October 1-5, 2001, Toulouse, France.
Organization OC Program No. 706-51-71
- 207** Rodriguez, C. G.: Asymmetry Effects in the Numerical Simulation of Supersonic Flows With Upstream Separated Regions. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0084.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0084.pdf>
Organization OC Program No. 706-51-71

- 208** Rogers, R. C.; Shih, A. T.; Tsai, C-Y.; and Foelsche, R. O.: Scramjet Tests in a Shock Tunnel at Flight Mach 7, 10 and 15 Conditions. Presented at 37th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 8-11, 2001, Salt Lake City, Utah. AIAA Paper No. 2001-3241.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-3241.pdf>
Organization RB Program No. 706-51-31

Category 08 Aircraft Stability and Control

- 209** Davidson, J. B., Jr.; Lallman, F. J.; and Bundick, W. T.: Real-Time Adaptive Control Allocation Applied to a High Performance Aircraft. Presented at Fifth SIAM Conference on Control & Its Applications, July 11-14, 2001, San Diego, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-5siam-jbd.pdf>
Organization RD Program No. 706-17-71
- 210** Davidson, J. B., Jr.; Lallman, F. J.; Morelli, E. A.; Bundick, W. T.; and Murphy, P. C.: Integrated Real-Time Reconfigurable Control Allocation. Presented at AIAA Guidance, Navigation, and Control Conference & Exhibit, August 6-9, 2001, Montreal, Canada.
Organization RD Program No. 706-17-71
- 211** Gregory, I. M.: Stability Result for Dynamic Inversion Devised to Control Large Flexible Aircraft. Presented at AIAA Guidance, Navigation, and Control Conference & Exhibit, August 6-9, 2001, Montreal, Canada. AIAA 2001-4284.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-4284.pdf>
Organization RD Program No. 706-62-21
- 212** Haley, P. J.; and Soloway, D. I.: Generalized Predictive Control for Active Flutter Suppression. *Journal of Guidance, Control, and Dynamics*, Volume 24, No. 1, January 2001, p. 154-159.
Organization RD Program No. 522-31-81
- 213** Joshi, S. M.; and Kelkar, A. G.: Passivity-Based Robust Control of Systems With Redundant Sensors and Actuators. *International Journal of Control*, Volume 74, No. 5, March 2001, p. 474-481.
Organization RD Program No. 522-33-11
- 214** McGowan, A. R.: Research on Adaptive Aerospace Vehicle Technologies at NASA Langley Research Center. Presented at Adaptronic Congress 2001, April 4-6, 2001, Berlin, Germany.
Organization OD Program No. 706-32-41
- 215** McGowan, A. R.: Smart Materials and Structures in NASA's Morphing Project. Presented at 1st CANADA-US Workshop on Smart Materials and Smart Structures, September 17-18, 2001, Quebec, Canada.
Organization OD Program No. 706-32-41

- 216** McGowan, A. R.: Passive and Active Damping for Aerospace Applications. Presented at Passive and Active Damping - Directions for the Next Decade, June 18-20, 2001, Ulm, Germany.
 Organization OD Program No. 706-32-41
- 217** Raney, D. L.; Jackson, E. B.; Buttrill, C. S.; and Adams, W. M., Jr.: The Impact of Structural Vibration on Flying Qualities of a Supersonic Transport. Presented at AIAA Atmospheric Flight Mechanics Conference, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4006.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-4006.pdf>
 Organization RD Program No. 537-09-41
- 218** Soloway, D. I.; and Haley, P. J.: Aircraft Reconfiguration Using Neural Generalized Predictive Control. Presented at 2001 American Control Conference, June 25-27, 2001, Arlington, Virginia.
 Organization RD Program No. 706-62-21
- 219** Waszak, M. R.: Robust Multivariable Flutter Suppression for the Benchmark Active Control Technology (BACT) Wind-Tunnel Model. *Journal of Guidance, Control, and Dynamics*, Volume 24, No. 1, January 2001, p. 147-153.
 Organization RD Program No. 522-31-81

Category 09 Research and Support Facilities (Air)

- 220** Bond, D. C.; and Gloss, B. B.: National Aeronautical Test Alliance. *IETA Journal of Test and Evaluation*, Volume 22, No. 4, December 2001-January 2002, p. 39-43.
 Organization AI Program No. 282-10-01
- 221** Egoavil, M. A.; and Puster, R. L.: Unique, Stabilized Flame in Fuel Injectors Created by Ignitor-Booster System. Presented at First International Conference on Fluid Structure Interaction, September 26-28, 2001, Halkidiki, Greece.
 Organization RF Program No. 706-51-31
- 222** Foelsche, R. O.; Rogers, R. C.; Tsai, C-Y.; Bakos, R. J.; and Shih, A. T.: Hypervelocity Capability of the HYPULSE Shock-Expansion Tunnel for Scramjet Testing. Presented at 23rd International Symposium on Shock Waves, July 22-27, 2001, Fort Worth, Texas. ISSW23 Paper No. 1047.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-23issw-rof.pdf>
 Organization RB Program No. 706-51-31
- 223** Jordan, J. D.; Leighty, B. D.; Davis, P. P.; Oglesby, D. M.; Ingram, J. L.; and Watkins, A. N.: Development of a Temperature Insensitive Pressure Sensitive Paint. Presented at ISA 47th International Instrumentation Symposium, May 6-10, 2001, Denver, Colorado.
 Organization RB Program No. 704-20-21

- 224** Leighty, B. D.; Jordan, J. D.; Sealey, B. S.; and Carmine, M. T.: Transitioning Pressure Sensitive Paint into the Wind Tunnel Environment. Presented at ISA 47th International Instrumentation Symposium, May 6-10, 2001, Denver, Colorado.
Organization RB Program No. 704-20-21
- 225** Liu, T.: Certain Aspects of Pressure Sensitive Paints. Presented at 2001 Summary Meeting of the MOSAIC Project, March 9-20, 2001, Narita, Japan.
Organization RB Program No. 992-35-12
- 226** Liu, T.; Guille, M.; and Sullivan, J. P.: Accuracy of Pressure-Sensitive Paint. *AIAA Journal*, Volume 39, No. 1, January 2001, p. 103-112.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/jp/NASA-2001-aj-tl.pdf>
Organization RB Program No. 519-20-21
- 227** Micol, J. R.: Langley Research Center's Unitary Plan Wind Tunnel: Testing Capabilities and Recent Modernization Activities. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0456.
Organization RB Program No. 522-25-31
- 228** Oglesby, D. M.; and Jordan, J. D.: Performance Comparison of Pressure Sensitive Paints. Presented at ISA 47th International Instrumentation Symposium, May 6-10, 2001, Denver, Colorado.
Organization RB Program No. 704-20-21
- 229** Parker, P. A.: Cryogenic Balance Technology at the National Transonic Facility. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0758.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0758.pdf>
Organization RB Program No. 992-20-08
- 230** Parker, P. A.; and DeLoach, R.: Response Surface Methods for Force Balance Calibration Modeling. Presented at ICIASF '01—19th International Congress on Instrumentation in Aerospace Simulation Facilities, August 27-30, 2001, Cleveland, Ohio.
Organization RB Program No. 706-17-81
- 231** Sprinkle, D. R.; Obara, C. J.; Amer, T. R.; Leighty, B. D.; Carmine, M. T.; Burkett, C. G., Jr.; and Sealey, B. S.: Langley 16-Ft. Transonic Tunnel Pressure Sensitive Paint System. NASA/TM-2001-211017, June 2001, 20 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211017.pdf>
Organization RB Program No. 522-31-31
- 232** Watkins, A. N.; Oglesby, D. M.; Leighty, B. D.; and Jordan, J. D.: Low Speed Pressure Sensitive Paint Measurements—Requirements and Applications. Presented at ISA 47th International Instrumentation Symposium, May 6-10, 2001, Denver, Colorado.
Organization RB Program No. 704-20-21

Astronautics

Category 13 Astrodynamics

- 233** Desai, P. N.; and Cheatwood, F. M.: Entry Dispersion Analysis for the Genesis Sample Return Capsule. *Journal of Spacecraft and Rockets*, Volume 38, No. 3, May–June 2001, p. 345-350.
Organization RA Program No. 859-00-00
- 234** Desai, P. N.; and Lee, W.: Mars Exploration Rover Entry, Descent, and Landing System. Presented at 24th Annual AAS Guidance and Control Conference, January 31–February 4, 2001, Breckenridge, Colorado.
Organization RA Program No. 865-10-03
- 235** Rollins, C. H.: Electromagnetic Compatibility Testing for the NASA Langley Research Center Boeing 757-200. Presented at 20th Digital Avionics Systems Conference, October 14-18, 2001, Daytona Beach, Florida.
Organization RF Program No. 728-60-30
- 236** Wie, B.; and Roithmayr, C. M.: Integrated Orbit, Attitude, and Structural Control System Design for Space Solar Power Satellites. Presented at AIAA Guidance, Navigation, and Control Conference & Exhibit, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4273.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-4273.pdf>
Organization RA Program No. 953-20-00

Category 15 Launch Vehicles and Space Vehicles

- 237** Hrinda, G. A.: Structures for the 3RD Generation Reusable Concept Vehicle. Presented at AIAA Space 2001 Conference and Exposition, August 27-30, 2001, Albuquerque, New Mexico.
Organization RA Program No. 706-87-21
- 238** Korte, J. J.; Salas, A. O.; Dunn, H. J.; Alexandrov, N. M.; Follett, W. W.; Orient, G. E.; and Hadid, A. H.: Multidisciplinary Approach to Linear Aerospike Nozzle Design. *Journal of Propulsion and Power*, Volume 17, No. 1, January 2001, p. 98-93.
Organization RA Program No. 242-33-03
- 239** Queen, E. M.; Striepe, S. A.; and Powell, R. W.: An Approach to Simulation of Extreme Conditions for a Planetary Lander. NASA/TM-2001-211246, November 2001, 13 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211246.pdf>
Organization RA Program No. 896-30-00

Category 16 Space Transportation

- 240 Blanchard, R. C.; Wilmoth, R. G.; Glass, C. E.; Merski, N. R.; Berry, S. A.; Bozung, T. J.; Tietjen, A.; Wendt, J.; and Dawson, D.: Infrared Sensing Aeroheating Flight Experiment: STS-96 Flight Results. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0352.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0352.pdf>
Organization RB Program No. 713-80-11
- 241 Blanchard, R. C.; Wilmoth, R. G.; Glass, C. E.; Merski, N. R.; Berry, S. A.; Bozung, T. J.; Tietjen, A.; Wendt, J.; and Dawson, D.: Infrared Sensing Aeroheating Flight Experiment: STS-96 Flight Results. *Journal of Spacecraft and Rockets*, Volume 38, No. 4, July–August 2001, p. 465-472.
Organization RB Program No. 242-80-01
- 242 Mankins, J. C.; and Mazanek, D. D.: The Hybrid Propellant Module (HPM): A New Concept for Space Transfer in the Earth's Neighborhood and Beyond. Presented at 52nd International Astronautical Congress, October 1-5, 2001, Toulouse, France.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-52iac-jcm.pdf>
Organization RA Program No. 706-87-11
- 243 Newman, D. J.; Amir, A. R.; and Beck, S. M.: Astronaut-Induced Disturbances to the Microgravity Environment of the Mir Space Station. *Journal of Spacecraft and Rockets*, Volume 38, No. 4, July–August 2001, p. 578-583.
Organization RF Program No. 547-60-00

Category 18 Spacecraft Design, Testing and Performance

- 244 Craig, D. A.; Monell, D. W.; Moore, A. A.; and Simpkins, P. A.: Development and Utilization of NASA's Advanced Engineering Environment—ISE. Presented at 2001 IEEE Aerospace Conference, March 10-17, 2001, Big Sky, Montana. Paper No. 172.
Organization RA Program No. 705-04-11
- 245 Harvey, G. A.; Lash, T. J.; Kinard, W. H.; Bull, K.; and De Geest, F.: Autonomous System for MISSE Temperature Measurements. Presented at AIAA Space 2001 Conference and Exposition, August 27-30, 2001, Albuquerque, New Mexico. AIAA Paper No. 2001-4557.
Organization RF Program No. 494-21-11
- 246 Lim, K. B.: Response Systems for Active Vibration Control: Robust Control. Presented at NATO Advanced Study Institute Meeting, September 10-19, 2001, Brussels, Belgium.
Organization RD Program No. 728-60-30
- 247 Lockwood, M. K.; Powell, R. W.; Graves, C. A.; and Carman, G. L.: Entry System Design Considerations for Mars Landers. Presented at 24th Annual AAS Guidance and Control Conference, January 31–February 4, 2001, Breckenridge, Colorado. Report No. AAS 01-023.
Organization RA Program No. 865-10-03

- 248 Maghami, P. G.; and Cox, D. E.: Control of Flexible Systems in the Presence of Failures. Presented at AIAA Guidance, Navigation, and Control Conference & Exhibit, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4096.

Organization RD

Program No. 706-32-41

- 249 Wie, B.; and Roithmayr, C. M.: Integrated Orbit, Attitude, and Structural Control Systems Design for Space Solar Power Satellites. NASA/TM-2001-210854, June 2001, 137 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210854.pdf>

Organization RA

Program No. 632-70-00

Category 20 Spacecraft Propulsion and Power

- 250 Liu, T.; and Finley, T. D.: Estimating Bias Error Distributions. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0162.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0162.pdf>

Organization RB

Program No. 992-35-12

Chemistry and Materials

Category 23 Chemistry and Materials (General)

- 251 Forth, S. C.; Newman, J. C., Jr.; and Forman, R. G.: Evaluation of Fatigue Crack Thresholds Using Various Experimental Methods. Presented at 33rd National Symposium on Fatigue and Fracture Mechanics, June 26-29, 2001, Moran, Wyoming.

Organization RC

Program No. 706-61-11

- 252 Jordan, J. D.; Davis, P. P.; Leighty, B. D.; Watkins, A. N.; Ingram, J. L.; Schryer, J. L.; Oglesby, D. M.; and Mirkin, C. A.: Development of Carbon Nanotube Based Sensor Array Devices. Presented at NanoSpace 2001: Exploring Interdisciplinary Frontiers, March 13-16, 2001, Galveston, Texas. In Proceedings.

Organization RB

Program No. 706-63-51

- 253 Prior, E. J.; Gardner, J. E.; Jacobs, J. A.; and Luedtke, L. A. (*Compilers*): National Educators' Workshop: Update 2000—Standard Experiments in Engineering, Materials Science, and Technology. NASA/CP-2001-211029, August 2001, 627 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cp/NASA-2001-cp211029.pdf>

Organization SH

Program No. 706-17-41

Category 24 Composite Materials

- 254 Abdel-Magid, B. M.; and Gates, T. S.: Accelerated Testing of Polymeric Composites Using the Dynamics Mechanical Analyzer. Presented at American Society of Composites 16th Annual Technical Conference, September 9-12, 2001, Blacksburg, Virginia.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-16asc-bma.pdf>

Organization RC

Program No. 706-61-11

- 255** Anastasi, R. F.; and Madaras, E. I.: Investigating the Application of Ultrasonic Guided Waves for Aging Wiring Assessment. Presented at 50th Defense Working Group on Nondestructive Testing, November 5-9, 2001, Corpus Christi, Texas.
 Organization RC Program No. 706-61-11
- 256** Baker, D. J.; and Kassapoglou, C.: Post-Buckled Composite Panels for Helicopter Fuselages: Design, Analysis, Fabrication, and Testing. Presented at AHS International Structures Specialists' Meeting, October 30–November 1, 2001, Williamsburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ahsiss-djb.pdf>
 Organization RC Program No. 722-63-87
- 257** Deo, R. B.; Starnes, J. H., Jr.; and Holzwarth, R. C.: Low-Cost Composite Materials and Structures for Aircraft Applications. Presented at NATO Research and Technology Agency Applied Vehicle Technical Panel Specialists' Meeting on Low Cost Composite Structures, May 7-8, 2001, Loen, Norway.
 Organization RC Program No. 706-63-71
- 258** Gates, T. S.: Computational Materials at NASA Langley: Nanotechnology Modeling and Simulation. Presented at NanoSpace 2001: Exploring Interdisciplinary Frontiers, March 13-16, 2001, Galveston, Texas.
 Organization RC Program No. 706-63-51
- 259** Gates, T. S.: Computational Nanomaterials at NASA Langley: Understanding the Influence of Intrinsic Material Properties of Polymeric Materials Through Modeling, Simulation, and Test. Presented at Optimisation of Microstructural Design and Structural Integrity of Composite Materials and Structures, May 20-25, 2001, Capri, Italy.
 Organization RC Program No. 706-63-51
- 260** Gates, T. S.; and Harris, C. E.: Computational Materials: An Approach to Modeling and Simulation of Nanostructured Materials. Presented at 2001 SEM Annual Conference and Exposition on Experimental Mechanics in Emerging Technologies, June 4-6, 2001, Portland, Oregon.
 Organization RC Program No. 706-63-51
- 261** Gates, T. S.; and Herring, H. M.: Facesheet Push-Off Tests to Determine Composite Sandwich Toughness at Cryogenic Temperatures. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1219.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1219.pdf>
 Organization RC Program No. 522-62-31
- 262** Glaessgen, E. H.: Failure Analysis of the X-33 Liquid Hydrogen Composite Tank. Presented at University of Tulsa, Department of Mechanical Engineering, September 5, 2001, Tulsa, Oklahoma.
 Organization RC Program No. 706-63-51

- 263** Glaessgen, E. H.; Sleight, D. W.; Reeder, J. R.; Wang, J. T.; Raju, I. S.; and Harris, C. E.: Failure of Composite Sandwich Structures With Internal Pressure. Presented at 33rd National Symposium on Fatigue and Fracture Mechanics, June 26-29, 2001, Moran, Wyoming.
Organization RC Program No. 242-23-02
- 264** Glass, D. E.; Shenoy, R. N.; Wang, Z.; and Halbig, M. C.: Effectiveness of Diffusion Barrier Coatings for Mo-Re Embedded in C/SiC and C/C. NASA/TM-2001-211264, December 2001, 46 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211264.pdf>
Organization RC Program No. 242-33-03
- 265** Harris, C. E.; Dicus, D. L.; and Shuart, M. J.: A Revolution in the Making: Advances in Materials That May Transform Future Exploration Infrastructures and Missions. Presented at AIAA Space 2001 Conference and Exposition, August 27-30, 2001, Albuquerque, New Mexico. AIAA Paper No. 2001-4679.
Organization RC Program No. 706-63-51
- 266** Harris, C. E.; and Gates, T. S.: Benefits of Nanostructured Materials to Aerospace Structural Applications. Presented at 2001 SEM Annual Conference and Exposition on Experimental Mechanics in Emerging Technologies, June 4-6, 2001, Portland, Oregon. In Proceedings, p. 517-520.
Organization RC Program No. 706-63-51
- 267** Harris, C. E.; and Shuart, M. J.: An Assessment of the State-of-the-Art for the Design and Manufacturing of Large Composite Structures for Aerospace Vehicles. Presented at 22nd SAMPE Europe International Conference, March 27-29, 2001, Paris, France.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-22sampe-ceh.pdf>
Organization RC Program No. 706-85-20
- 268** Harris, C. E.; and Shuart, M. J.: Composite Materials and Structures for Aerospace: Past, Present, and Future. Presented at 22nd SAMPE Europe International Conference, March 27-29, 2001, Paris, France.
Organization RC Program No. 706-85-20
- 269** Harris, C. E.; and Starnes, J. H., Jr.: Assessment of the State-of-the-Art for the Design and Manufacturing of Large Composite Structures. Presented at 21st Symposium of the International Committee on Aeronautical Fatigue (ICAF '01), June 25-29, 2001, Toulouse, France.
Organization RC Program No. 706-13-41
- 270** Harris, C. E.; Starnes, J. H., Jr.; and Shuart, M. J.: An Assessment of the State-of-the-Art in the Design and Manufacturing of Large Composite Structures for Aerospace Vehicles. NASA/TM-2001-210844, April 2001, 50 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210844.pdf>
Organization RC Program No. 706-85-20

- 271** Harris, C. E.; Starnes, J. H., Jr.; and Shuart, M. J.: Assessment of the State-of-the-Art for the Design and Manufacturing of Large Composite Structures. Presented at National Space & Missile Materials Symposium, June 25-28, 2001, Monterey, California.
Organization RC Program No. 706-85-20
- 272** Jackson, K. E.; Fasanella, E. L.; and Kellas, S.: Development of a Scale Model Composite Fuselage Concept for Improved Crashworthiness. *Journal of Aircraft*, Volume 38, No. 1, January–February, p. 95-103.
Organization RC Program No. 247-00-99
- 273** Johnson, T. F.; and Gates, T. S.: High Temperature Polyimide Materials in Extreme Temperature Environments. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1214.
Organization RC Program No. 242-23-02
- 274** Johnson, T. F.; and Gates, T. S.: High Temperature Polyimide Materials in Extreme Temperature Environments. Presented at American Society of Composites 16th Annual Technical Conference, September 9-12, 2001, Blacksburg, Virginia.
Organization RC Program No. 721-20-41
- 275** Karal, M. J.: AST Composite Wing Program—Executive Summary. (NAS1-20546 The Boeing Company.) NASA/CR-2001-210650, March 2001, 98 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210650.pdf>
Organization RC Program No. 522-83-11
- 276** Krueger, R.; and O'Brien, T. K.: A Shell/3D Modeling Technique for the Analysis of Delaminated Composite Laminates. *Composites Part A: Applied Science and Manufacturing*, Volume 32A, No. 1, January 2001, p. 25-44.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/jp/NASA-2001-caasm-rk.pdf>
Organization RC Program No. 581-10-21
- 277** Krueger, R.; Paris, I. L.; O'Brien, T. K.; and Minguet, P. J.: Comparison of 2D Finite Element Modeling Assumptions With Results From 3D Analysis for Composite Skin-Stiffener Debonding. Presented at 11th International Conference on Composite Structures, November 19-21, 2001, Melbourne, Australia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-11iccs-rk.pdf>
Organization RC Program No. 712-10-21
- 278** Krueger, R.; Paris, I. L.; O'Brien, T. K.; and Minguet, P. J.: Fatigue Life Methodology for Bonded Composite Skin/Stringer Configurations. NASA/TM-2001-210842, ARL-TR-2432, April 2001, 45 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210842.pdf>
Organization RC Program No. 712-10-21

- 279** Madaras, E. I.: Highlights of NASA's Role in Developing State-of-the-Art Nondestructive Evaluation for Composites. Presented at AHS International Structures Specialists' Meeting, October 30–November 1, 2001, Williamsburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ahsiss-eim.pdf>
Organization RC Program No. 706-61-11
- 280** Murri, G. B.; Schaff, J. R.; and Dobyns, A.: Fatigue and Damage Tolerance Analysis of a Hybrid Composite Tapered Flexbeam. Presented at AHS International 57th Annual Forum and Technology Display, May 9-11, 2001, Washington, DC.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-57ahs-gbm.pdf>
Organization RC Program No. 712-10-21
- 281** O'Brien, T. K.: Characterization, Analysis and Prediction of Delamination in Composites Using Fracture Mechanics. Presented at 10th International Congress of Fracture, December 2-6, 2001, Honolulu, Hawaii.
Organization RC Program No. 712-10-21
- 282** O'Brien, T. K.; Chawan, A. D.; DeMarco, K.; and Paris, I. L.: Influence of Specimen Preparation and Specimen Size on Composite Transverse Tensile Strength and Scatter. NASA/TM-2001-211030, ARL-TR-2540, July 2001, 86 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211030.pdf>
Organization RC Program No. 712-10-21
- 283** O'Brien, T. K.; Chawan, A. D.; Krueger, R.; and Paris, I. L.: Transverse Tension Fatigue Life Characterization Through Flexure Testing of Composite Materials. NASA/TM-2001-211035, ARL-TR-2544, July 2001, 73 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211035.pdf>
Organization RC Program No. 712-10-21
- 284** O'Brien, T. K.; and Krueger, R.: Analysis of Ninety Degree Flexure Tests for Characterization of Composite Transverse Tensile Strength. NASA/TM-2001-211227, ARL-TR-2568, October 2001, 58 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211227.pdf>
Organization RC Program No. 581-10-21
- 285** O'Brien, T. K.; and Paris, I. L.: Exploratory Investigation of Failure Mechanisms in Transition Regions Between Solid Laminates and X-cor® Truss Sandwich. Presented at 11th International Conference on Composite Structures, November 19-21, 2001, Melbourne, Australia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-11iccs-tko.pdf>
Organization RC Program No. 712-10-21

- 286** Paris, I. L.; Krueger, R.; and O'Brien, T. K.: Effect of Assumed Damage and Location on the Delamination Onset Predictions for Skin-Stiffener Debonding. Presented at AHS International Structures Specialists' Meeting, October 30–November 1, 2001, Williamsburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ahsiss-ilp.pdf>
 Organization RC Program No. 712-10-21
- 287** Poe, C. C., Jr.; Reeder, J. R.; and Yuan, F. G.: Fracture Behavior of a Stitched Warp-Knit Carbon Fabric Composite. NASA/TM-2001-210868, May 2001, 112 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210868.pdf>
 Organization RC Program No. 242-82-76
- 288** Raju, I. S.; and Glaessgen, E. H.: Effect of Stitching on Debonding in Composite Structural Elements. Presented at ICES'01—International Conference on Computational Engineering & Sciences, August 19-25, 2001, Puerto Vallarta, Mexico.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-icces-isr.pdf>
 Organization RC Program No. 706-85-10
- 289** Rivers, H. K.; Sikora, J. G.; and Sankaran, S. N.: Detection of Micro-Leaks Through Complex Geometries Under Mechanical Load and at Cryogenic Temperature. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper 2001-1218.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1218.pdf>
 Organization RC Program No. 713-23-02
- 290** Shuart, M. J.; and Harris, C. E.: Pathways to the Future Enabled by Revolutionary Materials. Presented at SAMPE 2001: A Materials and Processes Odyssey, May 6-10, 2001, Long Beach, California.
 Organization RC Program No. 706-32-51
- 291** Shuart, M. J.; Harris, C. E.; and Starnes, J. H., Jr.: Composite Materials and Structures for Aerospace: Past, Present, and Future. Presented at 16th American Society for Composites Conference, September 10-12, 2001, Blacksburg, Virginia.
 Organization RC Program No. 706-85-20
- 292** Stanley, L. E.; and Adams, D. O.: Development and Evaluation of Stitched Sandwich Panels. (L-11332 University of Utah.) NASA/CR-2001-211025, June 2001, 166 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211025.pdf>
 Organization RC Program No. 242-82-76
- 293** Starnes, J. H., Jr.; Dexter, H. B.; Johnston, N. J.; Ambur, D. R.; and Cano, R. J.: Composite Structures and Materials Research at NASA Langley Research Center. Presented at NATO Research and Technology Agency Applied Vehicle Technical Panel Specialists' Meeting on Low Cost Composite Structures, May 7-8, 2001, Loen, Norway. Paper No. MP-69-P-17.
 Organization RC Program No. 706-63-71

- 294 Whitley, K. S.; and Gates, T. S.: Tensile Properties of Polymeric Matrix Composites Subjected to Cryogenic Environments. Presented at American Society of Composites 16th Annual Technical Conference, September 9-12, 2001, Blacksburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-16asc-ksw.pdf>
Organization RC Program No. 706-61-11

Category 26 Metallic Materials

- 295 Bird, R. K.; Dicus, D. L.; Fridlyander, J. N.; and Sandler, V. S.: Aluminum-Lithium Alloy 1441: A Promising Material for Fuselage. *Metallovedenie—A Russian Monthly Scientific and Engineering Journal*, August 2001, p. 4.
Organization RC Program No. 706-63-61
- 296 Bird, R. K.; Wallace, T. A.; and Sankaran, S. N.: Development of Protective Coating for High-Temperature Metallic Materials. Presented at 130th Annual Meeting & Exhibition of The Minerals, Metals & Materials Society (TMS), February 11-15, 2001, New Orleans, Louisiana. In Proceedings.
Organization RC Program No. 242-23-04
- 297 Cantrell, J. H., Jr.; and Yost, W. T.: Method and Apparatus to Assess Optimum Strength During Processing of Precipitation Strengthened Alloys. U. S. Patent 6,197,130. Issued March 6, 2001.
Organization RC
- 298 Cantrell, J. H., Jr.; and Yost, W. T.: Nonlinear Ultrasonic Characterization of Fatigue Microstructures. *International Journal of Fatigue*, Volume 23, 2001, p. S487-S490.
Organization RC Program No. 706-12-21
- 299 Hales, S. J.; and Hafley, R. A.: Structure-Property Correlations in Al-Li Alloy Integrally Stiffened Extrusions. NASA/TP-2001-210839, April 2001, 54 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp210839.pdf>
Organization RC Program No. 706-63-51
- 300 Heald, J.; Peterson, L. D.; and Lake, M. S.: Deployment of Space Telescope Test Panel. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington.
Organization RC Program No. 632-04-00
- 301 James, M. A.; and Newman, J. C., Jr.: Evaluation of the Crack-Tip-Opening-Angle Fracture Criterion for Non-Straight Through Cracks Using a Cohesive-Zone Model. Presented at 10th International Congress of Fracture, December 2-6, 2001, Honolulu, Hawaii.
Organization RC Program No. 522-61-11

- 302** James, M. A.; and Newman, J. C., Jr.: Importance of Crack Tunneling During Fracture: Experiments and CTOA Analyses. Presented at 10th International Congress of Fracture, December 2-6, 2001, Honolulu, Hawaii.
Organization RC Program No. 522-61-11
- 303** James, M. A.; and Newman, J. C., Jr.: Experimental and Numerical Evaluation of Crack Length Measurement Methods for Non-Straight Through Cracks. Presented at 33rd National Symposium on Fatigue and Fracture Mechanics, June 26-29, 2001, Moran, Wyoming.
Organization RC Program No. 706-11-11
- 304** Kimmel, W. M.; Kuhn, N. S.; Berry, R. F., Jr.; and Newman, J. A.: Cryogenic Model Materials. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0757.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0757.pdf>
Organization RB Program No. 992-35-12
- 305** Namkung, M.; Paik, S. M.; and Wincheski, R. A.: Eddy Current Decay Patterns in Aluminum Alloys. Presented at 28th Annual Review of Progress in Quantitative Nondestructive Evaluation (QNDE), July 29–August 3, 2001, Brunswick, Maine.
Organization RC Program No. 706-61-11
- 306** Nemeth, M. P.: Buckling Behavior of Long Anisotropic Plates Subjected to Fully Restrained Thermal Expansion. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1330.
Organization RC Program No. 706-63-71
- 307** Newman, J. A.; and Piascik, R. S.: Plasticity and Roughness Closure Interactions at Threshold. Presented at 33rd National Symposium on Fatigue and Fracture Mechanics, June 26-29, 2001, Moran, Wyoming. In Proceedings, ASTM STP-1417.
Organization RC Program No. 706-61-11
- 308** Newman, J. C., Jr.; and James, M. A.: A Review of CTOA/CTOD Fracture Criterion - Why it Works? Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1324.
Organization RC Program No. 706-61-11
- 309** Newman, J. C., Jr.; and Zerbst, U.: A Review of the CTOA/CTOD Fracture Criterion. Presented at Workshop on Crack Tip Opening Angle, April 23-27, 2001, Geesthacht, Germany. In Proceedings.
Organization RC Program No. 706-61-11

- 310** Paik, S. M.; Namkung, M.; and Wincheski, R. A.: Thermodynamic Behaviors of Nano-Sized Au Clusters on (001) Surface. Presented at 2001 International Conference on Computational Nanoscience, March 19-21, 2001, Hilton Head, South Carolina.
Organization RC Program No. 706-63-51
- 311** Piascik, R. S.; Smith, S. W.; and Willard, S. A.: The Growth of Small/Short Fatigue Cracks From Corroded Countersink Holes. Presented at ASIP 2001—USAF Aircraft Structural Integrity Program, December 11-13, 2001, Williamsburg, Virginia.
Organization RC Program No. 706-67-11
- 312** Seshadri, B. R.; James, M. A.; Johnson, W. M., Jr.; and Newman, J. C., Jr.: Finite-Element Fracture Simulations of Integrally-Stiffened Panels. Presented at 5th Joint NASA/FAA/DoD Conference on Aging Aircraft, September 10-13, 2001, Orlando, Florida.
Organization RC Program No. 706-61-11
- 313** Seshadri, B. R.; and Newman, J. C., Jr.: Residual Strength Analyses of Riveted Lap-Splice Joints. In *Fatigue and Fracture Mechanics, 31st Volume, ASTM STP 1389*, G. R. Halford, J. P. Gallagher, eds., American Society for Testing and Materials, 2000, p. 486-504.
Organization RC Program No. 538-02-10
- 314** Seshadri, B. R.; and Newman, J. C., Jr.: Residual Strength Analyses of Single- and Multiple-Stiffened Wide Panels. Presented at 10th International Congress of Fracture, December 2-6, 2001, Honolulu, Hawaii.
Organization RC Program No. 706-61-11
- 315** Smith, S. W.; and Piascik, R. S.: Fatigue Crack Growth Characteristics of Thin Sheet Titanium Alloy Ti 6-2-2-2-2. NASA/TM-2001-210830, March 2001, 74 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210830.pdf>
Organization RC Program No. 706-61-11
- 316** Smith, S. W.; and Piascik, R. S.: The Effect of O₂, H₂O, and N₂ on the Fatigue Crack Growth Behavior of an $\alpha+\beta$ Titanium Alloy at 24°C and 177°C. NASA/TM-2001-211248, December 2001, 32 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211248.pdf>
Organization RC Program No. 706-61-11
- 317** Troeger, L. P.; and Domack, M. S.: Microstructure and Mechanical Property Characterization of Al-Cu-Mg-Ag Alloy C415 Shear Formed Cylinders. *Journal of Materials Processing & Manufacturing Science*, Volume 9, No. 3, January 2001, p. 180-204.
Organization RC Program No. 522-63-41
- 318** Troeger, L. P.; and Wagner, J. A.: Microstructure and Mechanical Property Characterization of Shear Formed Al-Li Alloy 2195 for Launch Vehicle Applications. *Journal of Materials Processing & Manufacturing Science*, Volume 9, No. 3, January 2001, p. 205-222.
Organization RC Program No. 522-63-41

- 319** Wagner, J. A.: New Developments in the Application of Near - Net Shape Fabrication Technologies to Advanced Aluminum Alloys for Space Transportation Systems. Presented at 12th AeroMat Conference & Exhibition, June 11-14, 2001, Long Beach, California.
Organization RC Program No. 706-85-20
- 320** Wincheski, R. A.; Namkung, M.; and Paik, S. M.: Spin Coherent Transport in Carbon Nanotube-Based Magnetic Tunnel Junctions. Presented at NanoSpace 2001: Exploring Interdisciplinary Frontiers, March 13-16, 2001, Galveston, Texas.
Organization RC Program No. 706-63-51
- 321** Wincheski, R. A.; Simpson, J. W.; Namkung, M.; Perey, D. F.; Scales, E. F.; and Louie, R.: Development of Giant Magnetoresistive Inspection System for Detection of Deep Fatigue Cracks Under Airframe Fasteners. Presented at 28th Annual Review of Progress in Quantitative Nondestructive Evaluation (QNDE), July 29–August 3, 2001, Brunswick, Maine.
Organization RC Program No. 706-63-81

Category 27 Nonmetallic Materials

- 322** Alexander, M. A.; Hill, D. J.; Connell, J. W.; and Watson, K. A.: A Study of the Oxidation of Two Aromatic Polyimide Fluoropolymers Containing Phenylphosphine Oxide by a Water Plasma and γ -Radiolysis in Air. *High Performance Polymers*, Volume 13, No. 1, March 2001, p. 55-65.
Organization RC Program No. 755-06-00
- 323** Ambur, D. R.; and Jaunky, N.: Optimal Design of Grid-Stiffened Panels and Shells With Variable Curvature. *Composites Structures*, Volume 52, No. 2, May 2001, p. 173-180.
Organization RC Program No. 522-13-31
- 324** Bryant, R. G.; Namkung, M.; Wincheski, R. A.; and Fox, R. L.: Fabrication of Molded Magnetic Article. U. S. Patent 6,190,589. Issued February 20, 2001.
Organization RF
- 325** Buck, G. M.; and Vasquez, P.: Process for Making Ceramic Mold. U. S. Patent 6,180,034. Issued January 30, 2001.
Organization RB
- 326** Burgess, J. W.; Wilenski, M. S.; Belvin, H. L.; Cano, R. J.; and Johnston, N. J.: Development of a Cure-on-the-Fly Automated Tape Placement Machine for Electron Beam Curable Prepregs. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California.
Organization RC Program No. 706-85-20

- 327** Cano, R. J.; Belvin, H. L.; Hulcher, A. B.; and Grenoble, R. W.: Studies on Automated Manufacturing of High Performance Composites. Presented at AHS International Structures Specialists' Meeting, October 30–November 1, 2001, Williamsburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ahsiss-rjc.pdf>
 Organization RC Program No. 706-85-20
- 328** Cano, R. J.; Belvin, H. L.; Johnston, N. J.; Hulcher, A. B.; Marchello, J. M.; Grenoble, R. W.; Wilenski, M. S.; and Burgess, J. W.: A Prototype Research Laboratory for Automated Fabrication of High Performance Composites. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California. In Proceedings, Volume 46, p. 2037.
 Organization RC Program No. 706-85-24
- 329** Cano, R. J.; Hou, T-H.; Weiser, E. S.; and St. Clair, T. L.: Polyimide Composites From “Salt-Like” Solution Precursors. *High Performance Polymers*, Volume 13, No. 4, December 2001, p. 235-250.
 Organization RC Program No. 706-85-20
- 330** Cano, R. J.; Weiser, E. S.; St. Clair, T. L.; Echigo, Y.; and Kaneshiro, H.: Films, Prepreg and Composites Made From Polyimide “Salt-Like” Solutions. U. S. Patent 6,222,007. Issued April 24, 2001.
 Organization RC
- 331** Choi, S. H.; Golembiewski, W. T.; Song, K. D.; and Bryant, R. G.: Networked Smart Material Actuators With Rectenna Array. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California. In Proceedings, Volume 4334, Paper No. 4334-45.
 Organization RC Program No. 706-32-21
- 332** Connell, J. W.; and Watson, K. A.: Space Environmentally Stable Polyimides and Copolyimides Derived From Bis(3-aminophenyl-3,5-di(trifluoromethyl)phenylphosphine Oxide. *High Performance Polymers*, Volume 13, No. 1, March 2001, p. 23-34.
 Organization RC Program No. 632-64-00
- 333** Connell, J. W.; and Watson, K. A.: Materials for Inflatables in Space. In *Gossamer Spacecraft: Membrane and Inflatable Structures Technology Spa*, C. H. M. Jenkins, ed., Progress in Astronautics and Aeronautics, Vol. 191, AIAA, 2001, p. 243-256.
 Organization RC Program No. 632-64-00
- 334** Costen, R. C.; Su, J.; and Harrison, J. S.: Model for Bending Actuators That Use Electrostrictive Graft Elastomers. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California. In Proceedings, Volume 4329, Paper No. 4329-59.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-8spie-rcc.pdf>
 Organization RC Program No. 755-06-00

- 335** Criss, J. M.; Koon, R. W.; Hergenrother, P. M.; Connell, J. W.; and Smith, J. G., Jr.: High Temperature VARTM of Phenylethynyl Terminated Imide Composites. Presented at 33rd International SAMPE Technical Conference, November 4-8, 2001, Seattle, Washington.
Organization RC Program No. 708-72-41
- 336** Dingemans, T. J.; Weiser, E. S.; and St. Clair, T. L.: Liquid Crystalline Thermosets for Composite and Electronic Applications. Presented at 2001 Materials Research Society Fall Meeting, November 26-30, 2001, Boston, Massachusetts.
Organization RC Program No. 706-85-20
- 337** Everett, R. A., Jr.; Matthews, W. T.; Prabakharan, R.; Newman, J. C., Jr.; and Dubberly, M. J.: The Effects of Shot and Laser Peening on Fatigue Life and Crack Growth in 2024 Aluminum Alloy and 4340 Steel. NASA/TM-2001-210843, ARL-TR-2363, December 2001, 23 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210843.pdf>
Organization RC Program No. 706-61-11
- 338** Grimsley, B. W.; Cano, R. J.; Johnston, N. J.; Loos, A. C.; and McMahon, W. M.: Hybrid Composites for LH2 Fuel Tank Structure. Presented at 33rd International SAMPE Technical Conference, November 4-8, 2001, Seattle, Washington.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-33sampe-bwg.pdf>
Organization RC Program No. 706-85-20
- 339** Grimsley, B. W.; Hubert, P.; Hou, T-H.; Cano, R. J.; Loos, A. C.; and Pipes, R. B.: Matrix Characterization and Development for the Vacuum Assisted Resin Transfer Molding Process. Presented at American Society of Composites 16th Annual Technical Conference, September 9-12, 2001, Blacksburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-16asc-bwg.pdf>
Organization RC Program No. 706-21-21
- 340** Grimsley, B. W.; Hubert, P.; Song, X.; Cano, R. J.; Loos, A. C.; and Pipes, R. B.: Flow and Compaction in the Vacuum Assisted Resin Transfer Molding Process. Presented at 33rd International SAMPE Technical Conference, November 4-8, 2001, Seattle, Washington.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-33sampe-bwg2.pdf>
Organization RC Program No. 706-21-21
- 341** Harik, V. M.; Nemeth, M. P.; and Gates, T. S.: Limitations of the Thin Shell and Beam Models for Carbon Nanotubes. Presented at ASME 2001 Mechanics and Materials Summer Conference, June 27-29, 2001, San Diego, California.
Organization RC Program No. 706-63-51
- 342** Hergenrother, P. M.: Design and Durability of High Performance/High Temperature Polymers. Presented at 221st National Meeting and Exposition of the American Chemical Society, April 1-5, 2001, San Diego, California.
Organization RC Program No. 274-00-01

- 343** Hou, T-H.; Belvin, H. L.; and Johnston, N. J.: Automated Tow Placed LARC™-PETI-5 Composites. *High Performance Polymers*, Volume 13, No. 4, December 2001, p. 323-336.
Organization RC Program No. 706-85-20
- 344** Hou, T-H.; Belvin, H. L.; and Johnston, N. J.: Properties of Automated Tow Placed LARC™-PETI-5 Composites. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California.
Organization RC Program No. 706-85-20
- 345** Hou, T-H.; Grimsley, B. W.; and Peterson, K. E.: Processability of the B-Staged IM7/PETI Composites. *Journal of Advanced Materials*, Volume 33, No. 3, July 2001, p. 52-60.
Organization RC Program No. 537-06-46
- 346** Hulcher, A. B.; Banks, W. I.; Grimsley, B. W.; Pipes, R. B.; Belvin, H. L.; and Johnston, N. J.: Fabrication of Thermoplastic Composite Cylindrical Shells by Automated Fiber Placement. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California.
Organization RC Program No. 537-06-48
- 347** Hulcher, A. B.; Banks, W. I., III; Pipes, R. B.; Tiwari, S. N.; Cano, R. J.; and Johnston, N. J.: Automated Fiber Placement of PEEK/IM7 Composites With Film Interleaf Layers. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California.
Organization RC Program No. 706-85-20
- 348** Jensen, B. J.: Method of Preparing Polymers With Lower Melt Viscosity. U. S. Patent 6,191,252. Issued February 20, 2001.
Organization RC
- 349** Jensen, B. J.: Method to Prepare Processable Polyimides With Reactive Endgroups Using 1,3 Bis. U. S. Patent 6,288,209. Issued September 11, 2001.
Organization RC
- 350** Jensen, B. J.; and Chang, A. C.: Long Term Aging of Adhesive Shear Specimens from LaRC™ 8515 Polyimide and Phenylethynyl Terminated Versions PETI-4 and PETI-5. Presented at 24th Annual Adhesion Society Meeting, February 25-28, 2001, Williamsburg, Virginia.
Organization RC Program No. 713-23-02
- 351** Johnston, W. M.: Fracture Tests on Thin Sheet 2024-T3 Aluminum Alloy for Specimens With and Without Anti-Buckling Guides. (NAS1-96014 Analytical Services and Materials Inc.) NASA/CR-2001-210832, March 2001, 40 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210832.pdf>
Organization RC Program No. 706-61-11

- 352** Johnston, W. M.: Fracture Test Results for 0.5, 0.7 and 0.9 Inch Thick 2324-T39 Aluminum Alloy Material. (NAS1-96014 Analytical Services and Materials Inc.)
NASA/CR-2001-210833, March 2001, 32 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210833.pdf>
Organization RC Program No. 706-61-11
- 353** Kim, M. Y.; Thibeault, S. A.; Kiefer, R. L.; Wilson, J. W.; Singleterry, R. C., Jr.; Moore, J.; Huff, H.; and Wilkins, R.: Fabrication and Testing of Habitat Components Using In-Situ Materials for Martian Exploration. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California. In Proceedings, Volume 46, Book 2, p. 1841-1852.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-46sampe-mhk.pdf>
Organization RC Program No. 632-64-00
- 354** Lillehei, P. T.; Park, C.; Crooks, R.; and Siochi, E. J.: Scanning Probe and High Resolution Electron Microscopy Study of Single Wall Carbon Nanotube Polymer Composites. Presented at 2001 Materials Research Society Fall Meeting, November 26-30, 2001, Boston, Massachusetts.
Organization RC Program No. 706-63-51
- 355** Nicholson, L. M.; and Gates, T. S.: The Influence of Crosslink Density on the Viscoelastic Response of an Advanced Polyimide. *Journal of Thermoplastic Composite Materials*, Volume 14, No. 6, 2001, p. 477-488.
Organization RC Program No. 522-63-31
- 356** Nicholson, L. M.; Gates, T. S.; and Hinkley, J. A.: Modeling the Mechanical Response of a High-Performance Glassy Polyimide. Presented at The American Physical Society Annual Meeting 2001, March 12-16, 2001, Seattle, Washington. In Proceedings.
Organization RC Program No. 706-63-51
- 357** Nicholson, L. M.; Whitley, K. S.; and Gates, T. S.: The Combined Influence of Molecular Weight and Temperature on the Physical Aging and Creep Compliance of a Glassy Thermoplastic Polyimide. *Mechanics of Time-Dependent Materials*, Volume 5, No. 3, 2001, p. 199-227.
Organization RC Program No. 522-63-31
- 358** Nicholson, L. M.; Whitley, K. S.; and Gates, T. S.: Crosslink Density and Molecular Weight Effects on the Viscoelastic Response of a Glassy High-Performance Polyimide. Presented at 221st National Meeting and Exposition of the American Chemical Society, April 1-5, 2001, San Diego, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-221acs-lmn.pdf>
Organization RC Program No. 706-63-51

- 359** Nicholson, L. M.; Whitley, K. S.; and Gates, T. S.: The Role of Molecular Weight and Temperature on the Elastic and Viscoelastic Properties of a Glassy Thermoplastic Polyimide. NASA/TM-2001-210664, February 2001, 24 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210664.pdf>
 Organization RC Program No. 706-13-31
- 360** Odegard, G. M.; Gates, T. S.; Nicholson, L. M.; and Wise, K.: Equivalent Continuum Modeling of Nano-Structured Materials. Presented at ASME 2001 Mechanics and Materials Summer Conference, June 27-29, 2001, San Diego, California.
 Organization RC Program No. 706-63-51
- 361** Odegard, G. M.; Gates, T. S.; Nicholson, L. M.; and Wise, K.: Equivalent-Continuum Modeling of Nano-Structured Materials. NASA/TM-2001-210863, May 2001, 35 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210863.pdf>
 Organization RC Program No. 706-63-51
- 362** Odegard, G. M.; Harik, V. M.; Wise, K.; and Gates, T. S.: Constitutive Modeling of Nanotube-Reinforced Polymer Composite Systems. NASA/TM-2001-211044, August 2001, 17 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211044.pdf>
 Organization RC Program No. 706-63-51
- 363** Odegard, G. M.; Harik, V. M.; Wise, K.; and Gates, T. S.: Constitutive Modeling of Nanotube-Reinforced Polymer Composite Systems. Presented at American Society of Composites 16th Annual Technical Conference, September 9-12, 2001, Blacksburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-16asc-gmo.pdf>
 Organization RC Program No. 706-63-51
- 364** Park, C.; Lowther, S. E.; Watson, K. A.; Ounaies, Z.; Smith, J. G., Jr.; and Connell, J. W.: Polymer-Single Wall Carbon Nanotube Composites for Potential Spacecraft Applications. Presented at 2001 MRS Spring Meeting, April 16-20, 2001, San Francisco, California.
 Organization RC Program No. 755-06-00
- 365** Park, C.; Ounaies, Z.; Watson, K. A.; Siochi, E. J.; Connell, J. W.; and Harrison, J. S.: Polymer-Single Wall Carbon Nanotube Composites for Potential Spacecraft Application. Presented at 2001 Materials Research Society Fall Meeting, November 26-30, 2001, Boston, Massachusetts.
 Organization RC Program No. 706-63-51
- 366** Park, C.; Watson, K. A.; Ounaies, Z.; Smith, J. G., Jr.; and Connell, J. W.: Polyimide/SWCNT Composite Films for Potential Spacecraft Applications. Presented at NanoSpace 2001: Exploring Interdisciplinary Frontiers, March 13-16, 2001, Galveston, Texas. In Proceedings.
 Organization RC Program No. 755-06-00

- 367** Pawlowski, K. J.; Su, J.; Raney, D. L.; Siochi, E. J.; Harrison, J. S.; and Bowlin, G. L.: Application of Electrospinning to Development of a Micro-Air Vehicle Wing. Presented at 2001 Materials Research Society Fall Meeting, November 26-30, 2001, Boston, Massachusetts.
 Organization RC Program No. 706-63-51
- 368** Rouse, J. H.; Ounaies, Z.; Siochi, E. J.; Harrison, J. S.; and Lillehei, P. T.: Formation of Novel Organic-Inorganic Electroactive Composites. Presented at 2001 Materials Research Society Fall Meeting, November 26-30, 2001, Boston, Massachusetts.
 Organization RC Program No. 706-63-51
- 369** Russell, D. A.; Connell, J. W.; Fogdall, L. B.; and Winkler, W. W.: Effects of Electrons, Protons, and Ultraviolet Radiation on the Thermophysical and Tensile Properties of Polymeric Films for Potential Applications on Gossamer Spacecraft. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1414.
 Organization RC Program No. 632-64-00
- 370** Siochi, E. J.; and St. Clair, T. L.: BIOSANT Program at NASA Langley Research Center. Presented at NanoSpace 2001: Exploring Interdisciplinary Frontiers, March 13-16, 2001, Galveston, Texas.
 Organization RC Program No. 706-63-51
- 371** Smith, J. G., Jr.; Connell, J. W.; Hergenrother, P. M.; and Criss, J. M.: High Temperature Transfer Molding Resins - II. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California. In Proceedings, Volume 46, p. 510-521.
 Organization RC Program No. 242-82-00
- 372** Southward, R. E.; and Stoakley, D. M.: Reflective and Electrically Conductive Surface Silvered Polyimide Films and Coatings Prepared Via Unusual Single-Stage Self-Metallization Techniques. *Progress in Organic Coatings*, Volume 41, No. 1-3, March 2001, p. 99-119.
 Organization RC Program No. 522-24-11
- 373** Su, J.; and Harrison, J. S.: Electrostrictive Elastomers and Applications in Aerospace Technologies. Presented at 2001 Materials Research Society Fall Meeting, November 26-30, 2001, Boston, Massachusetts.
 Organization RC Program No. 706-25-01
- 374** Su, J.; and Harrison, J. S.: Electromechanically Functional Elastomers. Presented at Gordon Research Conference on Elastomers, Networks, and Gels, August 5-10, 2001, New London, New Hampshire.
 Organization RC Program No. 706-25-01

- 375** Thibeault, S. A.; Kim, M. Y.; Anderson, R. A.; Kiefer, R. L.; Orwoll, R. A.; Wilson, J. W.; and Zeitlin, C. J.: Development of Improved Thin Polymer Films for Space Structures and Radiation Shielding. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
Organization RC Program No. 755-06-00
- 376** Thompson, C. M.; and Hergenrother, P. M.: Phenylethynyl Terminated Arylene Ether Oxadiazole and Triazole Oligomers and Their Cured Polymers. *High Performance Polymers*, Volume 13, No. 4, December 2001, p. 313-322.
Organization RC Program No. 708-72-41
- 377** Thompson, C. M.; and Hergenrother, P. M.: Phenylethynyl Containing Arylene Ether Oxadiazoles and Triazoles for High Performance Applications. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California. In Proceeding, Volume 46, p. 522-532.
Organization RC Program No. 274-00-00
- 378** Visentine, J. T.; Kinard, W. H.; Brinker, D.; Scheiman, D.; Banks, B.; Albyn, K.; Hornung, S.; and See, T.: MIR Solar Array Return Experiment: Power Performance Measurements & Molecular Contamination Analysis Results. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0684.
Organization RC Program No. 494-21-11
- 379** Watson, K. A.; Connell, J. W.; and Palmieri, F. L.: Space Environmentally Stable Polyimides and Copolyimides Derived From [2, 4-Bis(3-Aminophenoxy)Phenyl]-Diphenylphosphine Oxide. Presented at 46th International SAMPE Symposium and Exhibition, May 6-10, 2001, Long Beach, California. In Proceedings, Volume 46, p. 1853-1863.
Organization RC Program No. 755-06-00
- 380** Watson, K. A.; Smith, J. G., Jr.; and Connell, J. W.: Polyimide/Carbon Nanotube Composite Films for Potential Space Applications. Presented at 33rd International SAMPE Technical Conference, November 4-8, 2001, Seattle, Washington.
Organization RC Program No. 755-06-00
- 381** Weiser, E. S.; St. Clair, T. L.; Echigo, Y.; and Kaneshiro, H.: Hollow Polyimide Microspheres. U. S. Patent 6,235,803. Issued May 22, 2001.
Organization RC
- 382** Weiser, E. S.; St. Clair, T. L.; Echigo, Y.; and Kaneshiro, H.: Polyimide Precursor Solid Residuum. U. S. Patent 6,180,746. Issued January 30, 2001.
Organization RC

- 383** Williams, M. K.; Nelson, G. L.; Brenner, J. R.; Weiser, E. S.; and St. Clair, T. L.: High Performance Polyimide Foams. In *Fire and Polymers—Materials and Solutions for Hazard Prevention*, Gordon L. Nelson, Charles A. Wilkie, eds., American Chemical Society, August 2001, p. 49-62.

Organization RC

Program No. 706-85-20

Engineering

Category 31 Engineering (General)

- 384** Anastasi, R. F.; and Lopatin, C. M.: Application of a Fiber Optic Distributed Strain Sensor System to Woven E-Glass Composite. NASA/TM-2001-211051, ARL-TR-2435, August 2001, 19 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211051.pdf>

Organization RC

Program No. 706-61-11

Category 32 Communications and Radar

- 385** Woodard, S. E.; Hellbaum, R. F.; Daugherty, R. H.; Scholz, R. C.; Little, R. E.; Fox, R. L.; Denhardt, G. A.; Jang, S.; and Balien, R. A.: Piezoelectric Vibrational and Acoustic Alert for a Personal Communication Device. U. S. Patent 6,259,188. Issued July 10, 2001.

Organization RC

Category 33 Electronics and Electrical Engineering

- 386** Beggs, J. H.: A Linear Bicharacteristic FDTD Method. Presented at 2001 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting, July 8-13, 2001, Boston, Massachusetts.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ieeeaps-jhb1.pdf>

Organization RD

Program No. 706-31-41

- 387** Beggs, J. H.: The Linear Bicharacteristic Scheme for Electromagnetics. NASA/TM-2001-210861, May 2001, 19 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA/2001-tm210861.pdf>

Organization RD

Program No. 706-31-41

- 388** Beggs, J. H.; and Briley, W. R.: An Implicit Characteristic Based Method for Electromagnetics. NASA/TM-2001-210862, May 2001, 29 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210862.pdf>

Organization RD

Program No. 706-31-41

- 389** Beggs, J. H.; and Briley, W. R.: An Implicit LU/AF FDTD Method. Presented at 2001 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting, July 8-13, 2001, Boston, Massachusetts.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ieeeaps-jhb2.pdf>

Organization RD

Program No. 706-31-41

- 390** Cabell, R. H.; Palumbo, D. L.; and Vipperman, J. S.: A Principal Component Feedforward Algorithm for Active Noise Control: Flight Test Results. *IEEE Transactions on Control Systems Technology*, Volume 9, No. 1, January 2001, p. 76-83.
Organization RB Program No. 538-03-14
- 391** Clark, N.: Intelligent Star Tracker. Presented at SPIE 2001 International Symposium on Microelectronics and Micro-Electro-Mechanical Systems, December 17-19, 2001, Adelaide, Australia.
Organization RF Program No. 757-01-00
- 392** Deshpande, M. D.: Electromagnetic Coupling to a Wire Residing Inside a Rectangular Cavity With Apertures Due to External Radiating Sources. Presented at 2001 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting, July 8-13, 2001, Boston, Massachusetts.
Organization RD Program No. 706-31-41
- 393** Deshpande, M. D.: Analysis of Quarter-Wave Shorted Patch Antenna. Presented at 2001 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting, July 8-13, 2001, Boston, Massachusetts.
Organization RD Program No. 706-31-41
- 394** Gimmestad, G. G.; Papanicopolopoulos, C. D.; Richards, M. A.; Sherman, D. L.; and West, L. L.: Feasibility Study of Radiometry for Airborne Detection of Aviation Hazards. (NAS1-99073 Georgia Institute of Technology.) NASA/CR-2001-210855, June 2001, 51 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210855.pdf>
Organization RD Program No. 577-40-10
- 395** Kahng, S. K.; Shams, Q. A.; and Bartlett, J. E.: Properties of Carbon Nanotubes for Nonintrusive Measurement Applications. Presented at IMAPS' SoCal '01 Symposium and Exhibition, May 16-17, 2001, Pasadena, California.
Organization RB Program No. 706-63-51
- 396** Nguyen, T. X.; Ely, J. J.; and Koppen, S. V.: Mode-Stirred Method Implementation for HIRF Susceptibility Testing and Results Comparison with Anechoic Method. NASA/TM-2001-211033, July 2001, 21 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211033.pdf>
Organization RD Program No. 728-30-10
- 397** Roberts, M. J.: Dry Electrochemical Impedance Spectroscopy for NDE of Bonded Composites. Presented at 28th Annual Review of Progress in Quantitative Nondestructive Evaluation (QNDE), July 29–August 3, 2001, Brunswick, Maine. In Proceedings, Volume 21.
Organization RC Program No. 706-61-11

- 398 Ross, E. E.: Personal Electronic Devices and Their Interference With Aircraft Systems. (NAS1-96014 ViGYAN, Inc.) NASA/CR-2001-210866, June 2001, 29 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210866.pdf>
 Organization RD Program No. 706-62-11
- 399 Ryan, D. A.; and Hom, K. W.: Benchmark Measurement Data for an Aluminum Pipe. Presented at 2001 Electromagnetic Code Consortium (EMCC) Annual Meeting, May 28–June 1, 2001, Kauai, Hawaii.
 Organization RA Program No. 706-24-11
- 400 Shams, Q. A.; Kahng, S. K.; and Bartlett, J. E.: Application of Carbon Nanotubes for Aerospace Sensors. Presented at NanoSpace 2001: Exploring Interdisciplinary Frontiers, March 13-16, 2001, Galveston, Texas.
 Organization RB Program No. 706-63-51

Category 34 Fluid Mechanics and Heat Transfer

- 401 Berry, S. A.; Auslender, A. H.; Dilley, A. D.; and Calleja, J. F.: Hypersonic Boundary-Layer Trip Development for Hyper-X. *Journal of Spacecraft and Rockets*, Volume 38, No. 6, November–December 2001, p. 853-864.
 Organization RB Program No. 242-80-01
- 402 Berry, S. A.; Horvath, T. J.; Hollis, B. R.; Thompson, R. A.; and Hamilton, H. H., II: X-33 Hypersonic Boundary Layer Transition. *Journal of Spacecraft and Rockets*, Volume 38, No. 5, September–October 2001, p. 646-657.
 Organization RB Program No. 242-80-01
- 403 Berry, S. A.; Horvath, T. J.; Weilmuenster, K. J.; Alter, S. J.; and Merski, N. R.: X-38 Experimental Aeroheating at Mach 10. Presented at 35th AIAA Thermophysics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2828.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2828.pdf>
 Organization RB Program No. 713-80-00
- 404 Bushnell, D. M.: On (Civil) Aviation Future(s). *Aeronautical Journal of the Royal Society*, Volume 105, No. 1052, October 2001, p. 603-606.
 Organization A Program No. 282-10-01
- 405 Carlson, J. R.; Duquesne, N.; Rumsey, C. L.; and Gatski, T. B.: Computation of Turbulent Wake Flows in Variable Pressure Gradient. *Computers and Fluids*, Volume 30, No. 2, February 2001, p. 161-187.
 Organization RB Program No. 538-14-14

- 406** Cheatwood, F. M.; Merski, N. R.; Riley, C. J.; and Mitcheltree, R. A.: Aerothermodynamic Environment Definition for the Genesis Sample Return Capsule. Presented at 35th AIAA Thermophysics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2889.
 Organization RA Program No. 896-30-00
- 407** Choudhari, M. M.; Chang, C-L.; Khorrami, M. R.; Rubinstein, R.; Balakumar, P.; Kegerise, M. A.; King, R. A.; and Pack, L. G.: A Kaleidoscope of Global Instabilities in Aerodynamic Applications. Presented at Global Flow Instability and Control Symposium, September 23-25, 2001, Crete, Greece.
 Organization RB Program No. 706-31-11
- 408** Daryabeigi, K.: Thermal Analysis and Design of Multi-Layer Insulation for Re-Entry Aerodynamic Heating. Presented at 35th AIAA Thermophysics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2834.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2834.pdf>
 Organization RC Program No. 706-85-30
- 409** Daryabeigi, K.: Heat Transfer in Adhesively Bonded Honeycomb Core Panels. Presented at 35th AIAA Thermophysics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2825.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2825.pdf>
 Organization RC Program No. 706-85-30
- 410** Fox, J. S.; O'Byrne, S.; Houwing, A. F.; Papinniemi, A.; Danehy, P. M.; and Mudford, N. R.: Fluorescence Visualization of Hypersonic Flow Establishment Over a Blunt Fin. *AIAA Journal*, Volume 39, No. 7, July 2001, p. 1329-1337.
 Organization RB Program No. 708-72-40
- 411** Fraval, E.; Houwing, A. F.; and Danehy, P. M.: Single-Shot Broadband Coherent Anti-Stokes Raman Scattering Measurements in a Free-Piston Shock Tunnel Nozzle Expansion. Presented at 23rd International Symposium on Shock Waves, July 22-27, 2001, Fort Worth, Texas.
 Organization RB Program No. 708-72-40
- 412** Gatski, T. B.: Theory and Application of the Algebraic Stress Models. Presented at Seminar at National Technical University of Athens, October 23, 2001, Athens, Greece.
 Organization RB Program No. 706-31-11
- 413** Gatski, T. B.: DNS/LES for NASA Aerodynamic Needs and Engineering Applications. Presented at Third AFOSR International Conference on Direct Numerical Simulation and Large Eddy Simulation (TAICDL), August 5-9, 2001, Arlington, Texas.
 Organization RB Program No. 706-31-11

- 414** Gatski, T. B.: Current and Future Challenges in Turbulence Model Development. Presented at 2nd International Symposium on Turbulence and Shear Flow Phenomena–2001, June 27-29, 2001, Stockholm, Sweden.
 Organization RB Program No. 706-31-11
- 415** Glass, C. E.; and Moss, J. N.: Aerothermodynamic Characteristics in the Hypersonic Continuum-Rarefied Transitional Regime. Presented at 35th AIAA Thermophysics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2962.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2962.pdf>
 Organization RB Program No. 718-20-01
- 416** Glass, D. E.; Dilley, A. D.; and Kelly, H. N.: Numerical Analysis of Convection/Transpiration Cooling. *Journal of Spacecraft and Rockets*, Volume 38, No. 1, January–February 2001, p. 15-20.
 Organization RC Program No. 242-33-03
- 417** Glass, D. E.; Lanam, R. D.; Boland, E. F.; Etenko, A.; and Shchetkovskiy, A.: Iridium/Hafnium Oxide Coatings on Graphite and C/C Composites. Presented at 12th AeroMat Conference & Exhibition, June 11-14, 2001, Long Beach, California.
 Organization OC Program No. 706-85-30
- 418** Gnoffo, P. A.: Computational Aerothermodynamics in Aeroassist Applications. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2632.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2632.pdf>
 Organization RB Program No. 713-80-00
- 419** Gnoffo, P. A.: CFD Validation Studies for Hypersonic Flow Prediction. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-1025.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1025.pdf>
 Organization RB Program No. 713-80-00
- 420** Gould, D. C.: Thermal Analysis of a High-Speed Aircraft Using p -Version Finite Elements. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0369.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0369.pdf>
 Organization RF Program No. 537-09-20
- 421** Greene, F. A.; Buck, G. M.; and Wood, W. A.: Measured and Computed Hypersonic Aerodynamic/Aeroheating Characteristics for an Elliptically Blunted Flared Cylinder. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0562.
 Organization RB Program No. 713-80-00

- 422** Harik, V. M.: Ranges of Applicability for the Continuum-Beam Model in the Constitutive Analysis of Carbon Nanotubes: Nanotubes or Nano-Beams? (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211013, ICASE Report No. 2001-16, May 2001, 25 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-16.pdf>
 Organization A Program No. 505-90-52
- 423** Harrison, J. S.; and Ounaies, Z.: Piezoelectric Polymers. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211422, ICASE Report No. 2001-43, December 2001, 33 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-43.pdf>
 Organization A Program No. 505-90-52
- 424** Hart, R. C.; Balla, R. J.; Herring, G. C.; and Jenkins, L. N.: Seedless Laser Velocimetry Using Heterodyne Laser-Induced Thermal Acoustics. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211021, ICASE Report No. 2001-19, August 2001, 18 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-19.pdf>
 Organization A Program No. 505-90-52
- 425** Hart, R. C.; Herring, G. C.; and Balla, R. J.: Common-Path Heterodyne Laser-Induced Thermal Acoustics for Seedless Laser Velocimetry. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211252, ICASE Report No. 2001-37, December 2001, 12 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-37.pdf>
 Organization A Program No. 505-90-52
- 426** He, G.; Rubinstein, R.; and Wang, L.-P.: Effects of Eddy Viscosity on Time Correlations in Large Eddy Simulation. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210860, ICASE Report No. 2001-10, May 2001, 13 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-10.pdf>
 Organization A Program No. 505-90-52
- 427** Hollis, B. R.; Horvath, T. J.; Berry, S. A.; Hamilton, H. H., II; Thompson, R. A.; and Alter, S. J.: X-33 Computational Aeroheating Predictions and Comparisons With Experimental Data. *Journal of Spacecraft and Rockets*, Volume 38, No. 5, September–October 2001, p. 658-669.
 Organization RB Program No. 242-80-01
- 428** Horvath, T. J.; Berry, S. A.; and Hamilton, H. H., II: Qualitative Assessment of the Acoustic Disturbance Environment in the NASA LaRC 20-Inch Mach 6 Wind Tunnel. Presented at 95th Supersonic Tunnel Association, International, April 29–May 2, 2001, Hampton, Virginia.
 Organization RB Program No. 713-80-00

- 429** Horvath, T. J.; Berry, S. A.; Hollis, B. R.; Liechty, D. S.; Hamilton, H. H., II; and Merski, N. R.: X-33 Experimental Aeroheating at Mach 6 Using Phosphor Thermography. *Journal of Spacecraft and Rockets*, Volume 38, No. 5, September–October 2001, p. 634-645.
Organization RB Program No. 242-80-01
- 430** Horvath, T. J.; Heiner, N. C.; Olguin, D. M.; Cheatwood, F. M.; and Gnoffo, P. A.: Afterbody Heating Characteristics of a Proposed Mars Sample Return Orbiter. Presented at 35th AIAA Thermophysics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-3068.
Organization RB Program No. 896-10-00
- 431** Houwing, A. F.; Bishop, A.; Gaston, M.; Fox, J. S.; Danehy, P. M.; and Mudford, N. R.: Simulated Fuel-Jet/Shock-Wave Interaction. Presented at 23rd International Symposium on Shock Waves, July 22-27, 2001, Fort Worth, Texas.
Organization RB Program No. 708-72-40
- 432** Jaunky, N.; Ambur, D. R.; Davila, C. G.; and Hilburger, M. W.: Progressive Failure Studies of Composite Panels With and Without Cutouts. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211223, ICASE Report No. 2001-27, September 2001, 27 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-27.pdf>
Organization A Program No. 505-90-52
- 433** Jordan, T. L.; and Ounaies, Z.: Piezoelectric Ceramics Characterization. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211225, ICASE Report No. 2001-28, September 2001, 27 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-28.pdf>
Organization A Program No. 505-90-52
- 434** Jow, K. G.; and Dingemans, T. J.: Liquid Crystals Derived From 2-phenyl-isoidoles—Synthesis and Characterization. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211270, ICASE Report No. 2001-41, December 2001, 18 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-41.pdf>
Organization A Program No. 505-90-52
- 435** King, R. A.; and Breuer, K. S.: Acoustic Receptivity and Evolution of Two-Dimensional and Oblique Disturbances in a Blasius Boundary Layer. *Journal of Fluid Mechanics*, Volume 432, April 10, 2001, p. 69-90.
Organization RB Program No. 522-31-11

- 436** Little, M. E.; and Kordesch, M. E.: Band-Gap Engineering in Sputter Deposited Amorphous/Microcrystalline $\text{Sc}_x\text{Ga}_{1-x}\text{N}$. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211241, ICASE Report No. 2001-36, November 2001, 11 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-36.pdf>
 Organization A Program No. 505-90-52
- 437** Luo, L.-S.: Theory of the Lattice Boltzmann Method: Lattice Boltzmann Models for Non-Ideal Gases. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210858, ICASE Report No. 2001-8, April 2001, 31 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-8.pdf>
 Organization A Program No. 505-90-52
- 438** Moss, J. N.: Hypersonic Flows About a 25° Sharp Cone. NASA/TM-2001-211253, December 2001, 22 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211253.pdf>
 Organization RB Program No. 706-85-40
- 439** Moss, J. N.: DSMC Computations for Regions of Shock/Shock and Shock/Boundary Layer Interaction. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-1027.
 Organization RB Program No. 713-80-00
- 440** O'Byrne, S.; Danehy, P. M.; Houwing, A. F.; Mallinson, S.; and Palma, P. C.: Temperature and Velocity Measurements in a Hypersonic Boundary Layer. Presented at 23rd International Symposium on Shock Waves, July 22-27, 2001, Fort Worth, Texas.
 Organization RB Program No. 708-72-40
- 441** Ounaies, Z.; Mossi, K.; Smith, R. C.; and Bernd, J.: Low-Field and High-Field Characterization of THUNDER Actuators. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210859, ICASE Report No. 2001-9, April 2001, 15 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-9.pdf>
 Organization A Program No. 505-90-52
- 442** Paik, S. M.; Yoo, S. M.; Namkung, M.; and Wincheski, R. A.: Thermodynamic Behavior of Nano-Sized Gold Clusters on the (001) Surface. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211014, ICASE Report No. 2001-17, June 2001, 10 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-17.pdf>
 Organization A Program No. 505-90-52

- 443** Povitsky, A.: Three-Dimensional Flow in Cavity at Yaw. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211232, ICASE Report No. 2001-31, October 2001, 23 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-31.pdf>
 Organization A Program No. 505-90-52
- 444** Povitsky, A.; and Salas, M. D.: Lagrangian Approach to Jet Mixing and Optimization of the Reactor for Production of Carbon Nanotubes. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210662, ICASE Report No. 2001-4, February 2001, 27 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-4.pdf>
 Organization A Program No. 505-90-52
- 445** Rokni, M.; and Gatski, T. B.: Predicting Turbulent Convective Heat Transfer in Fully Developed Duct Flows. *International Journal of Heat and Fluid Flow*, Volume 22, No. 4, August 2001, p. 381-392.
 Organization RB Program No. 706-31-11
- 446** Rubinstein, R.: Application of the Theory of Time Correlations to the Radiation of Sound by Turbulent Flows. Presented at PEPIT Colloquium, Univeriste Claude Bernard, June 11-12, 2001, Lyon, France.
 Organization RB Program No. 706-31-11
- 447** Rubinstein, R.; and Choudhari, M. M.: Stochastic Description of Transitional Flows. Presented at Nagoya University, Department of Computational Science and Engineering, March 11-28, 2001, Nagoya, Japan.
 Organization RB Program No. 706-31-11
- 448** Rubinstein, R.; Rumsey, C. L.; Salas, M. D.; and Thomas, J. L. (*Editors*): Turbulence Modeling Workshop. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210841, ICASE Interim Report 37, March 2001, 193 p.
<ftp://ftp.icase.edu/pub/interim/Interim37.pdf>
 Organization A Program No. 505-90-52
- 449** Rubinstein, R.; and Zhou, Y.: Schiestel's Derivation of the Epsilon Equation and Two Equation Modeling of Rotating Turbulence. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211060, ICASE Report No. 2001-24, September 2001, 11 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-24.pdf>
 Organization A Program No. 505-90-52
- 450** Rumsey, C. L.; and Gatski, T. B.: Isolating Curvature Effects in Computing Wall-Bounded Turbulent Flows. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0725.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0725.pdf>
 Organization RB Program No. 522-31-11

- 451** Rumsey, C. L.; and Gatski, T. B.: Recent Turbulence Model Advances Applied to Multielement Airfoil Computations. *Journal of Aircraft*, Volume 38, No. 5, September–October 2001, p. 904-911.
Organization RB Program No. 706-13-11
- 452** Rumsey, C. L.; Gatski, T. B.; Anderson, W. K.; and Nielsen, E. J.: Isolating Curvature Effects in Computing Wall-Bounded Turbulent Flow. *International Journal of Heat and Fluid Flow*, Volume 22, No. 6, December 2001, p. 573-582.
Organization RB Program No. 522-31-11
- 453** Sherman, D. M.; Wilkinson, S. P.; and Roth, J. R.: Paraelectric Gas Flow Accelerator. U. S. Patent 6,200,539. Issued March 13, 2001.
Organization RB
- 454** Shin, J-Y.: Analysis of Linear Parameter Varying System Models Based on Reachable Sets. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211231, ICASE Report No. 2001-30, October 2001, 22 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-30.pdf>
Organization A Program No. 505-90-52
- 455** Shin, J-Y.; Balas, G. J.; and Kaya, A. M.: Blending Methodology of Linear Parameter Varying Control Synthesis of F-16 Aircraft System. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211237, ICASE Report No. 2001-33, October 2001, 26 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-33.pdf>
Organization A Program No. 505-90-52
- 456** Shirinzadeh, B.; Herring, G. C.; and Exton, R. J.: Examination of “Anomalous” Shock Velocities in Weakly Ionized Gases. *AIAA Journal*, Volume 39, No. 6, June 2001, p. 1210-1212.
Organization RB Program No. 522-31-11
- 457** Sidilkover, D.; and Nielsen, E. J.: Factorizable Upwind Schemes: The Triangular Unstructured Grid Formulation. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2575.
Organization RB Program No. 706-31-21
- 458** Smith, R. C.; Ounaies, Z.; and Wieman, R.: A Model for Rate-Dependent Hysteresis in Piezoceramic Materials Operating at Low Frequencies. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211062, ICASE Report No. 2001-26, September 2001, 15 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-26.pdf>
Organization A Program No. 505-90-52

- 459** Sullins, A. D.; and Daryabeigi, K.: Effective Thermal Conductivity of High Porosity Open Cell Nickel Foam. Presented at 35th AIAA Thermophysics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2819.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2819.pdf>
 Organization RC Program No. 706-85-30
- 460** Wieman, R.; Smith, R. C.; Kackley, T.; Ounaies, Z.; and Bernd, J.: Displacement Models for THUNDER Actuators Having General Loads and Boundary Conditions. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211061, ICASE Report No. 2001-25, September 2001, 17 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-25.pdf>
 Organization A Program No. 505-90-52
- 461** Wood, W. A.; and Kleb, W. L.: 2-D/Axisymmetric Formulation of Multi-Dimensional Upwind Scheme. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2630.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2630.pdf>
 Organization RB Program No. 706-85-40
- 462** Wu, X.; and Choudhari, M. M.: Linear and Nonlinear Instabilities of Blasius Boundary Layer Perturbed by Streamwise Vortices, Part II: Intermittent Instability Induced by Long-Wavelength Klebanoff Modes. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211424, ICASE Report No. 2001-45, December 2001, 46 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-45.pdf>
 Organization A Program No. 505-90-52
- 463** Zhao, C. Y.; So, R. M.; and Gatski, T. B.: Turbulence Modeling Effects on the Prediction of Equilibrium States of Buoyant Shear Flows. *Theoretical and Computational Fluid Dynamics*, Volume 14, No. 6, July 2001, p. 399-422.
 Organization RB Program No. 706-31-11

Category 35 Instrumentation and Photography

- 464** Adcock, E. E.; Bartlett, J. E.; Culliton, W. G.; Jordan, T. L.; Mau, J. C.; Bare, E. A.; Florance, J. P.; and Kahng, S. K.: An Embedded Wireless Data Acquisition System for Wind Tunnel Model Applications. Presented at ICIASF '01—19th International Congress on Instrumentation in Aerospace Simulation Facilities, August 27-30, 2001, Cleveland, Ohio.
 Organization RB Program No. 704-20-21
- 465** Amer, T. R.; Liu, T.; and Oglesby, D. M.: Characterization of Pressure Sensitive Paint Intrusiveness Effects on Aerodynamic Data. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0556.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0556.pdf>
 Organization RB Program No. 992-20-03

- 466** Amer, T. R.; Subramanian, C.; Upchurch, B. T.; Alderfer, D. W.; Sealey, B. S.; and Burkett, C. G., Jr.: Device and Method for Measuring Thermal Conductivity of Thin Films. U. S. Patent 6,331,075. Issued December 18, 2001.
Organization RB
- 467** Borg, S. E.; and Harper, S. E.: A Fiber-Optic Probe Design for Combustion Chamber Flame Detection Applications—Design Criteria, Performance Specifications, and Fabrication Technique. NASA/TM-2001-211233, October 2001, 14 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211233.pdf>
Organization RB Program No. 706-51-31
- 468** Burner, A. W.; and Liu, T.: Videogrammetric Model Deformation Measurement Technique. *Journal of Aircraft*, Volume 38, No. 4, July–August 2001, p. 745-754.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/jp/NASA-2001-joa-awb.pdf>
Organization RB Program No. 704-20-21
- 469** Burner, A. W.; Liu, T.; Garg, S.; Ghee, T. A.; and Taylor, N. J.: Aeroelastic Deformation Measurements of Flap, Gap, and Overhang on a Semispan Model. *Journal of Aircraft*, Volume 38, No. 6, November–December 2001, p. 1147-1154.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/jp/NASA-2001-joa-awb2.pdf>
Organization RB Program No. 704-20-21
- 470** Cate, K. H.: Videogrammetric Model Deformation Measurement Software Package—Reference Manual for MDef.exe. NASA/TM-2001-210554, March 2001, 32 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210554.pdf>
Organization RB Program No. 519-20-21
- 471** Chapman, J. J.; Hopson, P., Jr.; and Holloway, N. M.: Multi-Channel Electronically Scanned Cryogenic Pressure Sensor and Method for Making Same. U. S. Patent 6,247,369. Issued June 19, 2001.
Organization RE
- 472** Chapman, J. J.; Shams, Q. A.; and Powers, W. T.: Cryogenic, Absolute, High Pressure Sensor. U. S. Patent 6,240,785. Issued June 5, 2001.
Organization RE
- 473** Danehy, P. M.; Mere, P.; Gatson, M. J.; O’Byrne, S.; Palma, P. C.; and Houwing, A. F.: Fluorescence Measurement of the Velocity-Field Produced by the Hypersonic, Separated Flow Over a Cone. *AIAA Journal*, Volume 39, No. 7, July 2001, p. 1320-1328.
Organization RB Program No. 708-72-40
- 474** Danehy, P. M.; O’Byrne, S.; and Houwing, A. F.: Flow-Tagging Velocimetry for Hypersonic Flows Using Fluorescence of Nitric Oxide. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0302.
Organization RB Program No. 708-72-40

- 475** Fishman, J.; Ladd, I. H.; De Young, R. J.; Buch, L. C.; and Short, G. W.: Ozone Measurements for the GLOBE Surface Ozone Protocol Using the Zikua™ Optical Scanner: Methodology Improvement and Initial Validation Study Results. Presented at 6th Annual GLOBE Conference, July 22-27, 2001, Blaine, Washington.
Organization RE Program No. 344-96-00
- 476** Fleming, G. A.; Bartram, S. M.; Waszak, M. R.; and Jenkins, L. N.: Projection Moire Interferometry Measurements of Micro Air Vehicle Wings. Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-46spie-gaf.pdf>
Organization RB Program No. 706-32-41
- 477** Hart, R. C.; Balla, R. J.; Herring, G. C.; and Jenkins, L. N.: Seedless Laser Velocimetry Using Heterodyne Laser-Induced Thermal Acoustics. Presented at ICIASF '01—19th International Congress on Instrumentation in Aerospace Simulation Facilities, August 27-30, 2001, Cleveland, Ohio.
Organization RB Program No. 706-31-11
- 478** Holden, C., Jr.; Pitts, M. C.; Abedin, M. N.; Lucker, P. L.; and Hansen, G. M.: Calibration Efforts for a High Resolution A-Band Spectrometer. Presented at SPIE's—OPTO Northeast and Imaging 2001, April 10-11, 2001, Rochester, New York.
Organization RF Program No. 259-40-04
- 479** Horner, G. C.; and Taleghani, B. K.: Single Axis Piezoceramic Gimbal. *Journal of Intelligent Materials and Structures*, Volume 12, No. 3, March 2001, p. 157-160.
Organization RC Program No. 632-64-00
- 480** Humphreys, W. M., Jr.; and Bartram, S. M.: Measurement of Separated Flow Structures Using a Multiple-Camera DPIV System. Presented at ICIASF '01—19th International Congress on Instrumentation in Aerospace Simulation Facilities, August 27-30, 2001, Cleveland, Ohio.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-19iciasf-wmh.pdf>
Organization RB Program No. 704-20-21
- 481** Jobson, D. J.; Rahman, Z.; and Woodell, G. A.: The Spatial Aspect of Color and Scientific Implications of Retinex Processing. Presented at SPIE's 2001 AeroSense Symposium, April 16-20, 2001, Orlando, Florida.
Organization RD Program No. 274-00-00
- 482** Johnson, D. G.: Design of a Far-Infrared Spectrometer for Atmospheric Thermal Emission Measurements. Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-46spie-dgj.pdf>
Organization RF Program No. 755-09-00

- 483** Jones, T. W.; and Hoppe, J. C.: Comparison of Angle of Attack Measurements for Wind Tunnel Testing. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0559.
Organization RB Program No. 706-32-31
- 484** Liu, T.; Barrows, D. A.; Burner, A. W.; and Rhew, R. D.: Determining Aerodynamic Loads Based on Optical Deformation Measurements. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0560.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0560.pdf>
Organization RB Program No. 519-20-21
- 485** Liu, T.; and Finley, T. D.: Estimating Bias Error Distributions. *Review of Scientific Instruments*, Volume 72, No. 9, September 2001, p. 3561-3571.
Organization RB Program No. 992-35-12
- 486** Mackenzie, A. I.: Comparison of Thermal Coefficients for Two Microwave Detectors—Diode/Voltage-to-Frequency Converter and Flash Analog-to-Digital Converter. NASA/TM-2001-211258, December 2001, 22 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211258.pdf>
Organization RD Program No. 258-80-00
- 487** Pappa, R. S.; Giersch, L. R.; and Quagliaroli, J. M.: Photogrammetry of a 5m Inflatable Space Antenna With Consumer Digital Cameras. Presented at 19th International Modal Analysis Conference, February 5-8, 2001, Kissimmee, Florida. In Proceedings, Vol. 1, p. 550-560.
Organization RC Program No. 632-64-00
- 488** Entry deleted.
- 489** Ross, R. W.: Integrated Component-Based Data Acquisition Systems for Aerospace Test Facilities. Presented at ICIASF '01—19th International Congress on Instrumentation in Aerospace Simulation Facilities, August 27-30, 2001, Cleveland, Ohio.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-19iciasf-rwr.pdf>
Organization RB Program No. 992-35-12
- 490** Severance, K.; Brewster, P. F.; Lazos, B. S.; and Keefe, D.: Wind Tunnel Data Fusion and Immersive Visualization: A Case Study. Presented at IEEE Visualization 2001, October 21-26, 2001, San Diego, California. In Proceedings, p. 505-508, 600.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ieeevis-ks.pdf>
Organization RF Program No. 992-16-03

- 491** Shams, Q. A.; Conner, D. A.; Graves, S. S.; Moniuszko, M.; and Smith, C. D.: Field-Deployable Acoustic Systems for Noise Measurement. Presented at International Military Noise Conference, April 24-26, 2001, Baltimore, Maryland.
Organization RB Program No. 727-03-15
- 492** Shams, Q. A.; Moniuszko, M.; and Ingham, J. C.: Applying MEMS Technology to Field, Flight, and Space Deployable Systems. Proceedings of ICIASF '01—19th International Congress on Instrumentation in Aerospace Simulation Facilities, August 27-30, 2001, Cleveland, Ohio.
Organization RB Program No. 727-03-15
- 493** Weinstein, L. M.: Thickness Measurement Device for Ice, or Ice Mixed With Water or Other Liquid. U. S. Patent 6,239,601. Issued May 29, 2001.
Organization RB
- 494** Zalameda, J. N.: Synchronized Electronic Shutter System (SESS) for Thermal Nondestructive Evaluation. Presented at Thermosense XXIII, April 16-20, 2001, Orlando, Florida. In Proceedings, SPIE Volume 4360, Paper No. 4360-81.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-thermo-jnz.pdf>
Organization RC Program No. 274-00-00
- 495** Zuckerwar, A. J.; and Garza, F. R.: Vibration Sensitivity of a Wide-Temperature Electronically Scanned Pressure Measurement (ESP) Module. NASA/TM-2001-211228, September 2001, 40 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211228.pdf>
Organization RB Program No. 706-31-31
- 496** Zuckerwar, A. J.; and Serbyn, M. R.: Measurement of Background Noise in Piezoresistive and Electret Condenser Microphones. Presented at 142nd Meeting of the Acoustical Society of America, December 3-7, 2001, Fort Lauderdale, Florida.
Organization RB Program No. 727-03-15

Category 36 Lasers and Masers

- 497** Ambur, D. R.; Jaunky, N.; Davila, C. G.; and Hilburger, M. W.: Progressive Failure Studies of Composite Panels With and Without Cutouts. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1182.
Organization RC Program No. 706-63-71
- 498** Axenson, T. J.; Barnes, N. P.; and Reichle, D. J., Jr.: High Energy Q-switched 946 nm Diode Pumped Laser. Presented at Advanced Solid-State Lasers 16th Topical Meeting and Tabletop Exhibit, January 28-31, 2001, Seattle, Washington. In Proceedings.
Organization RF Program No. 258-70-21

- 499** Barnes, J. C.: NASA's DIAL/Lidar Laser Technology Development Program. Presented at NATO Advanced Study Institute Conference, June 15-30, 2001, Erice, Italy.
Organization RF Program No. 755-01-00
- 500** Barnes, N. P.: Fiber Lasers. Presented at NATO Advanced Study Institute, June 13-30, 2001, Erice, Italy.
Organization RF Program No. 755-09-00
- 501** Barnes, N. P.; Clarkson, W. A.; Hanna, D. C.; Matera, V.; and Walsh, B. M.: Tm:Glass Fiber Laser Pumping Ho:YAG and Ho:LuAG. Presented at CLEO 2001: Conference on Lasers and Electro-Optics, May 6-11, 2001, Baltimore, Maryland.
Organization RF Program No. 258-70-21
- 502** Barnes, N. P.; Clarkson, W. A.; Hanna, D. C.; Turner, P. W.; Nilsson, J.; and Walsh, B. M.: Diode Pumped, Tunable, Q-Switched Tm:glass Fiber Laser. Presented at Advanced Solid-State Lasers 16th Topical Meeting and Tabletop Exhibit, January 28-31, 2001, Seattle, Washington.
Organization RF Program No. 258-70-21
- 503** Chen, S.; Petway, L. B.; Marsh, W. D.; Edwards, W. C.; and Barnes, J. C.: A Compact and High-Pulse-Energy Ti:Sapphire Laser at 30Hz and Its Third Harmonic at 289 nm. Presented at Advanced Solid-State Lasers 16th Topical Meeting and Tabletop Exhibit, January 28-31, 2001, Seattle, Washington.
Organization RF Program No. 258-70-21
- 504** Chen, S.; Petway, L. B.; Meadows, B. L.; Marsh, W. D.; Edwards, W. C.; and Elayed, K. A.: 30-mJ, 30-Hz, and 300-nm Ultraviolet Laser Source Generated by a Frequency-Tripled Ti:Sapphire Laser. Presented at CLEO 2001: Conference on Lasers and Electro-Optics, May 6-11, 2001, Baltimore, Maryland.
Organization RF Program No. 258-70-22
- 505** Childers, B. A.; Froggatt, M. E.; Allison, S. G.; Moore, T. C., Sr.; Hare, D. A.; Batten, C. F.; and Jegley, D. C.: Use of 3000 Bragg Grating Strain Sensors Distributed on Four Eight-Meter Optical Fibers During Static Load Tests of a Composite Structure. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California. In Proceedings, Volume 4332, Paper No. 4332-17.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-8spie-bac.pdf>
Organization RC Program No. 706-13-41
- 506** Humphreys, W. M., Jr.; and Naguib, A. M.: A Comparative Study of Image Compression Techniques for Digital Particle Image Velocimetry. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0695.
Organization RB Program No. 522-31-11

- 507** Jones, A. L., Jr.; DeYoung, R. J.; and Elsayid-Ele, H.: Compact Ozone Differential Absorption Lidar (DIAL) Transmitter Using Solid-State Dye Polymers. NASA/TM-2001-211028, July 2001, 49 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211028.pdf>
 Organization RE Program No. 622-63-13
- 508** Koch, G. J.; Petros, M.; and Yu, J.: Coherent DIAL With a Ho:Tm:YLF Laser for Measurement of Wind, Water Vapor, and Carbon Dioxide. Presented at 11th Coherent Laser Radar Conference, July 1-6, 2001, Great Malvern, United Kingdom.
 Organization RF Program No. 706-25-01
- 509** Meyers, J. F.; Lee, J. W.; and Schwartz, R. J.: Characterization of Measurement Error Sources in Doppler Global Velocimetry. *Measurement Science and Technology*, Volume 12, No. 4, April 2001, p. 357-368.
 Organization RB Program No. 581-10-11
- 510** Nagarathnam, K.; and Taminger, K. M.: Technology Assessment of Laser-Assisted Materials Processing in Space. Presented at Space Technology & Applications International Forum (STAIF-2001), February 11-15, 2001, Albuquerque, New Mexico. In Proceedings, p. 153-160.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-staif-kn.pdf>
 Organization RC Program No. 706-63-61
- 511** Yu, J.; Petros, M.; Singh, U. N.; Barnes, J. C.; and Barnes, N. P.: A High Energy Double Pulsed Ho:Tm:YLF 2- μ m Laser. Presented at Advanced Solid-State Lasers 16th Topical Meeting and Tabletop Exhibit, January 28-31, 2001, Seattle, Washington. In Proceedings, p. 237-239.
 Organization RF Program No. 258-70-21

Category 38 Quality Assurance and Reliability

- 512** Noor, A. K. (*Compiler*): Nondeterministic Approaches and Their Potential for Future Aerospace Systems. NASA/CP-2001-211050, September 2001, 368 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cp/NASA-2001-cp211050.pdf>
 Organization A Program No. 282-10-11

Category 39 Structural Mechanics

- 513** Ambur, D. R.; Jaunky, N.; Lawson, R. E.; and Knight, N. F., Jr.: Numerical Simulations for High-Energy Impact of Thin Plates. *International Journal of Impact Engineering*, Volume 25, No. 7, August 2001, p. 683-703.
 Organization RC Program No. 522-63-31

- 514** Arbocz, J.; Starnes, J. H., Jr.; and Nemeth, M. P.: On a High-Fidelity Hierarchical Approach to Buckling Load Calculations. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. In Proceedings, AIAA Paper No. 2001-1392.
 Organization RC Program No. 706-63-71
- 515** Arbocz, J.; Starnes, J. H., Jr.; and Nemeth, M. P.: On the Accuracy of Probabilistic Buckling Load Predictions. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1236.
 Organization RC Program No. 706-63-71
- 516** Barut, A.; Madenci, E.; Tessler, A.; and Starnes, J. H., Jr.: A New Stiffened Shell Element for Geometrically Nonlinear Analysis of Composite Laminates. *Computers & Structures*, Volume 77, No. 1, August 2000, p. 11-40.
 Organization RC Program No. 537-06-34
- 517** Camanho, P. P.; Davila, C. G.; and Ambur, D. R.: Numerical Simulation of Delamination Growth in Composite Materials. NASA/TP-2001-211041, August 2001, 24 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp211041.pdf>
 Organization RC Program No. 707-85-10
- 518** Davila, C. G.; and Camanho, P. P.: Decohesion Elements Using Two and Three-Parameter Mixed-Mode Criteria. Presented at AHS International Structures Specialists' Meeting, October 30–November 1, 2001, Williamsburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ahsiss-cgd.pdf>
 Organization RC Program No. 707-85-10
- 519** Davila, C. G.; Camanho, P. P.; and De Moura, M. F.: Progressive Damage Analyses of Skin/Stringer Debonding. Presented at American Society of Composites 16th Annual Technical Conference, September 9-12, 2001, Blacksburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-16asc-cgd.pdf>
 Organization RC Program No. 707-85-10
- 520** Davila, C. G.; Camanho, P. P.; and De Moura, M. F.: Mixed-Mode Decohesion Elements for Analyses With Progressive Delamination. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1486.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1486.pdf>
 Organization RC Program No. 707-85-10
- 521** Elishakoff, I.; Li, Y. W.; and Starnes, J. H., Jr.: *Non-Classical Problems in the Theory of Elastic Stability*, Cambridge University Press, January 2001, 384 p.
 Organization RC Program No. 522-11-41

- 522** Forth, S. C.; and Staroselsky, A.: Fracture Evaluation of In-Situ Sensors for High Temperature Applications. Presented at 10th International Congress of Fracture, December 2-6, 2001, Honolulu, Hawaii.
Organization RC Program No. 706-61-11
- 523** Giersch, L. R.: Pathfinder Photogrammetry Research for Ultra-Lightweight and Inflatable Space Structures. (NCC1-01017 George Washington University, JIAFS.)
NASA/CR-2001-211244, November 2001, 76 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211244.pdf>
Organization RC Program No. 755-06-00
- 524** Glaessgen, E. H.; Sleight, D. W.; and Raju, I. S.: Damage Tolerance Analyses of Sandwich Structures. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington.
Organization RC Program No. 242-23-55
- 525** Hilburger, M. W.: Nonlinear and Buckling Behavior of Compression-Loaded Composite Shells. Presented at American Society of Composites 16th Annual Technical Conference, September 9-12, 2001, Blacksburg, Virginia.
Organization RC Program No. 706-63-71
- 526** Hilburger, M. W.; Britt, V. O.; and Nemeth, M. P.: Buckling Behavior of Compression-Loaded Quasi-Isotropic Curved Panels With a Circular Cutout. *International Journal of Solids and Structures*, Volume 38, No. 9, 2001, p. 1495-1522.
Organization RC Program No. 511-11-41
- 527** Hilburger, M. W.; Nemeth, M. P.; and Starnes, J. H., Jr.: Nonlinear and Buckling Behavior of Curved Panels Subjected to Combined Loads. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1398.
Organization RC Program No. 706-63-71
- 528** Hilburger, M. W.; Rose, C. A.; and Starnes, J. H., Jr.: Nonlinear Analysis and Scaling Laws for Noncircular Composite Structures Subjected to Combined Loads. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1335.
Organization RC Program No. 706-63-71
- 529** Hilburger, M. W.; and Starnes, J. H., Jr.: High-Fidelity Nonlinear Analysis of Compression-Loaded Composite Shells. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1394.
Organization RC Program No. 706-63-71

- 530** Hilburger, M. W.; and Starnes, J. H., Jr.: The Effects of Imperfections on the Nonlinear Response and Buckling of Composite Shells. Presented at ASME 2001 Mechanics and Materials Summer Conference, June 27-29, 2001, San Diego, California.
Organization RC Program No. 706-63-71
- 531** Jegley, D. C.; and Bush, H. G.: Structural Testing of a Stitched/Resin Film Infused Graphite-Epoxy Wing Box. NASA/TM-2001-210846, April 2001, 121 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210846.pdf>
Organization RC Program No. 706-63-71
- 532** Jegley, D. C.; Bush, H. G.; and Lovejoy, A. E.: Evaluation of the Structural Response and Failure of a Full-Scale Stitched Graphite-Epoxy Wing. Presented at AHS International Structures Specialists' Meeting, October 30–November 1, 2001, Williamsburg, Virginia.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ahsiss-dcj.pdf>
Organization RC Program No. 522-83-11
- 533** Jegley, D. C.; Bush, H. G.; and Lovejoy, A. E.: Structural Response and Failure of a Full-Scale Stitched Graphite-Epoxy Wing. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1334.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1334.pdf>
Organization RC Program No. 522-83-11
- 534** Juang, J-N.; Kholodar, D.; and Dowell, E. H.: System Identification of a Vortex Lattice Aerodynamic Model. NASA/TM-2001-211229, October 2001, 39 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211229.pdf>
Organization RC Program No. 706-32-21
- 535** Lake, M. S.: Astronaut Construction of Large Aperture Structures in Space. Presented at 2001 IEEE Aerospace Conference, March 10-17, 2001, Big Sky, Montana.
Organization RC Program No. 632-64-00
- 536** Lew, J-S.; and Juang, J-N.: Structural Damage Detection Using Virtual Passive Controllers. NASA/TM-2001-211251, December 2001, 29 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211251.pdf>
Organization RC Program No. 706-32-21
- 537** Li, J.; Davila, C. G.; and Chen, T-K.: High Fidelity Failure Analysis for a Composite Fuselage Section. Presented at AHS International 57th Annual Forum and Technology Display, May 9-11, 2001, Washington, DC.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-57ahs-jl.pdf>
Organization RC Program No. 705-01-11

- 538** Mason, B. H.; and Walsh, J. L.: Coupled Aerodynamic and Structural Sensitivity Analysis of a High-Speed Civil Transport. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1431.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1431.pdf>
 Organization RC Program No. 725-10-11
- 539** McGowan, D. M.; Ambur, D. R.; Hanna, T. G.; and McNeill, S. R.: Evaluating the Compressive Response of Notched Composite Panels Using a Full-Field Displacements. *Journal of Aircraft*, Volume 38, No. 1, January–February 2001, p. 122-129.
 Organization RC Program No. 538-13-11
- 540** McGowan, D. M.; Davila, C. G.; and Ambur, D. R.: Damage Progression in Buckle-Resistant Notched Composite Plates Loaded in Uniaxial Compression. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1482.
 Organization RC Program No. 242-82-76
- 541** Moon, D.; and Jegley, D. C.: Demonstration of Stitched/Resin Film Infused Composites in Primary Aircraft Wing Structures. Presented at 7th Japan International SAMPE Symposium and Exhibition, November 13-16, 2001, Tokyo, Japan.
 Organization RC Program No. 706-63-71
- 542** Naser, A. S.; Pototzky, A. S.; and Spain, C. V.: Response of the Alliance 1 Proof-of-Concept Airplane Under Gust Loads. (NAS1-96014 Lockheed Martin Engineering and Sciences Company.) NASA/CR-2001-210649, March 2001, 228 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr210649.pdf>
 Organization RC Program No. 710-10-11
- 543** Pappa, R. S.; Giersch, L. R.; and Quagliaroli, J. M.: Photogrammetry of a 5M Inflatable Space Antenna With Consumer-Grade Digital Cameras. *Experimental Techniques*, Volume 25, No. 4, July–August 2001, p. 21-29.
 Organization RC Program No. 632-64-00
- 544** Pappa, R. S.; Lassiter, J. O.; and Ross, B. P.: Structural Dynamics Experimental Activities in Ultra-Lightweight and Inflatable Space Structures. NASA/TM-2001-210857, May 2001, 23 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210857.pdf>
 Organization RC Program No. 755-06-00
- 545** Pappa, R. S.; Woods-Vedeler, J. A.; and Jones, T. W.: In-Space Structural Validation Plan for a Stretched-Lens Solar Array Flight Experiment. NASA/TM-2001-211417, December 2001, 16 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211417.pdf>
 Organization RC Program No. 755-06-00

- 546** Park, O.; Haftka, R. T.; Sankar, B. V.; Starnes, J. H., Jr.; and Nagendra, S.: Analytical-Experimental Correlation for a Stiffened Composites Panel Loaded in Axial Compression. *Journal of Aircraft*, Volume 38, No. 2, March–April 2001, p. 379-387.
Organization RC Program No. 706-63-71
- 547** Ransom, J. B.: Multifunctional Collaborative Modeling and Analysis Methods in Engineering Science. Presented at Second Finite Element Modeling Continuous Improvement (FEMCI) Workshop, May 16-17, 2001, Greenbelt, Maryland.
Organization RC Program No. 706-85-10
- 548** Ransom, J. B.: Computational Structural Mechanics Challenges for the 21st Century Design. Presented at Mission Critical Computing Conference, September 25-27, 2001, Arlington, Virginia.
Organization RC Program No. 706-85-10
- 549** Ransom, J. B.: On Multifunctional Collaborative Methods in Engineering Science. NASA/TM-2001-211046, September 2001, 245 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211046.pdf>
Organization RC Program No. 706-85-10
- 550** Rizzi, S. A.; and Muravyov, A.: Improved Equivalent Linearization Implementations Using Nonlinear Stiffness Evaluation. NASA/TM-2001-210838, March 2001, 66 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210838.pdf>
Organization RB Program No. 781-10-13
- 551** Rose, C. A.; Young, R. D.; and Starnes, J. H., Jr.: The Nonlinear Response of Cracked Aluminum Shells Subjected to Combined Loads. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1395.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1395.pdf>
Organization RC Program No. 706-61-11
- 552** Rouse, M.; and Assadi, M.: Evaluation of a Scaling Approach for Stiffened-Composite Flat Panels Loaded in Compression. *Journal of Aircraft*, Volume 38, No. 5, September–October 2001, p. 950-955.
Organization RC Program No. 522-11-41
- 553** Shkarayev, S.; Krashanitsa, R.; and Tessler, A.: An Inverse Interpolation Method Utilizing In-Flight Strain Measurements for Determining Loads and Structural Response of Aerospace Vehicles. Presented at 3rd International Workshop on Structural Health Monitoring, September 12-14, 2001, Stanford, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-3iwshm-ss.pdf>
Organization RC Program No. 710-70-21

- 554** Slade, K. N.; Virgin, L. N.; and Tinker, M. L.: Mode Splitting in an Inflated Polyimide Cylinder With Circumferential Asymmetry. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington.
 Organization RC Program No. 632-64-00
- 555** Smeltzer, S. S., III; and Klang, E. C.: A Curved, Elastostatic Boundary Element for Plane Anisotropic Structures. Presented at American Society of Composites 16th Annual Technical Conference, September 9-12, 2001, Blacksburg, Virginia. Paper No. 096.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-16asc-sss.pdf>
 Organization RC Program No. 706-85-10
- 556** Starnes, J. H., Jr.; Hilburger, M. W.; and Waters, W. A., Jr.: Effects of Imperfections on the Buckling Response of Composite Shells. Presented at EUROMECH Colloquium 424—Buckling Predictions of Imperfection-Sensitive Shells, September 3-5, 2001, Kerkrade, The Netherlands.
 Organization RC Program No. 706-63-71
- 557** Starnes, J. H., Jr.; Newman, J. C., Jr.; Harris, C. E.; Piascik, R. S.; Young, R. D.; and Rose, C. A.: Advances in Structural Integrity Analysis Methods for Aging Metallic Airframe Structures With Local Damage. Proceedings of RTO/AVT Workshop on Life Management Techniques for Aging Air Vehicles, October 8-11, 2001, Manchester, United Kingdom.
 Organization RC Program No. 706-61-11
- 558** Starnes, J. H., Jr.; Newman, J. C., Jr.; Harris, C. E.; Young, R. D.; Rose, C. A.; and James, M. A.: Advances in Residual Strength Analyses From Laboratory Coupons to Structural Components. Presented at 21st Symposium of the International Committee on Aeronautical Fatigue (ICAF '01), June 25-29, 2001, Toulouse, France.
 Organization RC Program No. 522-62-11
- 559** Stroud, W. J.; Krishnamurthy, T.; and Smith, S. A.: Probabilistic and Possibilistic Analyses of the Strength of a Bonded Joint. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1238.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1238.pdf>
 Organization RC Program No. 706-31-61
- 560** Tessler, A.; Annett, M. S.; and Gendron, G.: A $\{1,2\}$ -Order Plate Theory Accounting for Three-Dimensional Thermoelastic Deformations in Thick Composite and Sandwich Laminates. *Composite Structures*, Volume 52, No. 1, April 2001, p. 67-84.
 Organization RC Program No. 242-23-02
- 561** Turner, T. L.: A New Thermoelastic Model for Analysis of Shape Memory Alloy Hybrid Composites. *Journal of Intelligent Material Systems and Structures*, Volume 11, No. 5, May 2000, p. 382-394.
 Organization RB Program No. 522-32-31

- 562** Turner, T. L.: Experimental Validation of a Thermoelastic Model for SMA Hybrid Composites. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California. In Proceedings, Volume 4326, Paper No. 4326-24.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-8spie-tlt24.pdf>
Organization RB Program No. 522-32-31
- 563** Turner, T. L.; Lach, C. L.; and Cano, R. J.: Fabrication and Characterization of SMA Hybrid Composites. Presented at SPIE's 8th International Symposium on Smart Structures and Materials, March 4-8, 2001, Newport Beach, California. In Proceedings, Volume 4333, Paper No. 4333-60.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-8spie-tlt60.pdf>
Organization RB Program No. 522-32-31
- 564** Wang, J. T.; Johnson, T. F.; Sleight, D. W.; and Saether, E.: Cryogenic Tank Structure Sizing With Structural Optimization Method. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1599.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1599.pdf>
Organization RC Program No. 706-85-10
- 565** Woodard, S. E.; Kelkar, A. G.; and Koganti, G.: Multidisciplinary Concurrent Design Optimization via the Internet. NASA/TM-2001-210644, March 2001, 30 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210644.pdf>
Organization RC Program No. 706-32-31
- 566** Wu, K. C.; and Gurdal, Z.: Thermal Testing of Tow-Placed, Variable Stiffness Panels. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1190.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1190.pdf>
Organization RA Program No. 706-63-51
- 567** Young, R. D.; Rose, C. A.; and Starnes, J. H., Jr.: Skin, Stringer, and Fastener Loads in Buckled Fuselage Panels. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1326.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1326.pdf>
Organization RC Program No. 706-61-11
- 568** Young, R. D.; Rose, C. A.; and Starnes, J. H., Jr.: Nonlinear Response of Fuselage Panels With Cracks and Subjected to Combined Loads. Presented at 5th Joint NASA/FAA/DoD Conference on Aging Aircraft, September 10-13, 2001, Orlando, Florida.
Organization RC Program No. 706-61-11

Geosciences

Category 42 Geosciences (General)

- 569** Browell, E. V.: Possibilities for Active Remote Sensing in the Near Future. Presented at CGMS Workshop on Long-Term Future of the Basic Sounding and Imaging Missions, April 23-24, 2001, Geneva, Switzerland.
Organization RE Program No. 622-29-26
- 570** Browell, E. V.; Grant, W. B.; Hair, J. W.; and DeYoung, R. J.: Tropospheric and Stratospheric Ozone Investigations with Airborne Lidar. Presented at IGARSS 2001—International Geoscience and Remote Sensing Symposium, July 9-13, 2001, Sydney, Australia.
Organization RE Program No. 622-63-13
- 571** Browell, E. V.; Hair, J. W.; Butler, C. F.; Grant, W. B.; DeYoung, R. J.; Fenn, M. A.; Clayton, M. B.; Brackett, V. G.; Brasseur, L. H.; Harper, D. B.; Notari, A.; Williams, J. A.; Alexander, G. D.; Insley, G. V.; *et al.*: High-Latitude Tropospheric Ozone, Aerosol, and Potential Vorticity Trends Observed From February to May 2000 During TOPSE Field Experiment. Presented at American Geophysical Union 2001 Spring Meeting, May 29–June 2, 2001, Boston, Massachusetts.
Organization RE Program No. 622-43-31
- 572** Chu, W. P.; Veiga, R. E.; Cisewski, M.; and Trepte, C. R.: SAGE III Meteor Mission: Pre-Launch Preparation, Post-Launch Operation, and Initial On-Orbit Data. Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.
Organization RE Program No. 229-10-32
- 573** Cofer, W. R., III; Anderson, B. E.; Connors, V. S.; Wey, C. C.; Sanders, T.; Twohy, C. H.; Brock, C. A.; Winstead, E. L.; Pui, D.; Chen, D.; Hagen, D. E.; and Whitefield, P.: NASA's Atmospheric Effects of Aviation Project—Results of the August 1999 Aerosol Measurement Intercomparison Workshop, Laboratory Phase. NASA/TM-2001-210829, June 2001, 25 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210829.pdf>
Organization RE Program No. 622-63-10
- 574** Cofer, W. R., III; Anderson, B. E.; Connors, V. S.; Wey, C. C.; Sanders, T.; Winstead, E. L.; Pui, D.; Chen, D.; Hagen, D. E.; and Whitefield, P.: NASA's Atmospheric Effects of Aviation Project—Results of the August 1999 Aerosol Measurement Intercomparison Workshop, T-38 Aircraft Sampling Phase. NASA/TM-2001-211226, October 2001, 21 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211226.pdf>
Organization RE Program No. 622-63-10

- 575** Crawford, J. H.; Davis, D. D.; Chen, G.; Buhr, M.; Shetter, R.; Lefer, B.; Hogan, A.; Arimoto, R.; Oltmans, S.; and Weller, R.: Evidence for Photochemical Formation of Ozone at the South Pole Surface. *Geophysical Research Letters*, Volume 28, No. 19, October 1, 2001, p. 3641-3644.
 Organization RE Program No. 622-61-11
- 576** Crawford, J. H.; Shetter, R.; Lefer, B.; Cantrell, C.; Madronich, S.; Calvert, J.; and Junkerman, W.: Cloud Impacts on UV Spectral Actinic Flux Observed During IPMMI. Presented at Gordon Conference on Atmospheric Chemistry, June 17-22, 2001, Newport, Rhode Island.
 Organization RE Program No. 622-61-11
- 577** Davis, D. D.; Grodzinsky, G.; Kasibhatla, P. S.; Crawford, J. H.; Chen, G.; Liu, S.; Bandy, A. R.; Thornton, D. C.; Guan, H.; and Sandholm, S. T.: Impact of Ship Emissions on Marine Boundary Layer NO_x and SO₂ Distributions Over the Pacific Basin. *Geophysical Research Letters*, Volume 28, No. 2, January 15, 2001, p. 235-238.
 Organization RE Program No. 622-61-11
- 578** Fairlie, T. D.; Pierce, R. B.; and Crawford, J. H.: Tracer Transport Simulations of CO and O₃ for TRACE-P: Comparison of Model Results With Lidar and In-Situ Observations. Presented at Presentation to Department of Earth and Planetary Sciences, Harvard University Seminar, June 22, 2001, Cambridge, Massachusetts.
 Organization RE Program No. 662-63-02
- 579** Grant, W. B.: An Overview of NASA Langley's UV DIAL Measurement Program on Ozone and Aerosols in the Global Troposphere and Stratosphere. Presented at Presented at Seoul National University Seminar, May 8-10, 2001, Seoul, Korea.
 Organization RE Program No. 622-63-13
- 580** Mertens, C. J.: Non-Local Thermodynamic Equilibrium Kinetic Temperature Retrieval From Measurements of CO₂ 15μm Earth Limb Emission. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
 Organization RE Program No. 622-61-11
- 581** Mertens, C. J.; Mlynchak, M. G.; Kratz, D. P.; and Johnson, D. G.: Feasibility of Retrieving Upper Tropospheric Water Vapor From Observations of Far-Infrared Radiation. Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.
 Organization RE Program No. 258-80-00

- 582** Olson, J. R.; Crawford, J. H.; Davis, D. D.; Avery, M. A.; Vay, S. A.; Barrick, J. D.; Sandholm, S. T.; Brune, B.; Tan, D.; Heikes, B. G.; Shetter, R.; Lefer, B.; Singh, H. B.; Talbot, R. W.; *et al.*: Seasonal Differences in the Photochemistry of the South Pacific: A Comparison of Observations and Model Results From PEM Tropics A and B. *Journal of Geophysical Research*, Volume 102, No. D23, December 16, 2001, p. 32,749-32,766.
Organization RE Program No. 622-61-11
- 583** Pfister, L.; Selkirk, H. B.; Jensen, E. J.; Schoeberl, M. R.; Toon, O. B.; Browell, E. V.; Grant, W. B.; Gary, B.; Mahoney, M. J.; Bui, T. V.; and Hints, E.: Aircraft Observations of Thin Cirrus Clouds Near the Tropical Tropopause. *Journal of Geophysical Research*, Volume 106, No. D9, May 16, 2001, p. 9765-9786.
Organization RE Program No. 622-63-12
- 584** Raper, J. L., Sr.; Kleb, M. M.; Jacob, D. J.; Davis, D. D.; Newell, R. E.; Fuelberg, H. E.; Bendura, R. J.; Hoell, J. M., Jr.; and McNeal, R. J.: Pacific Exploratory Mission in the Tropical Pacific: PEM-Tropics B, March-April 1999. *Journal of Geophysical Research*, Volume 106, No. 23, December 16, 2001, p. 32,401-32,426.
Organization RE Program No. 622-63-02

Category 43 Earth Resources and Remote Sensing

- 585** Daniels, T. S.: TAMDAR Capabilities Development. Presented at Weather Accident Prevention Annual Review, June 5-7, 2001, Cleveland, Ohio.
Organization RD Program No. 728-40-10
- 586** Fishman, J.: Observing Tropospheric Ozone From Space. *Progress in Environmental Science*, Volume 2, No. 4, December 2000, p. 275-290.
Organization RE Program No. 622-56-61
- 587** Johnson, D. G.: Plans for ILAS-II Validation and Lessons Learned From the Alaska Balloon Campaign. Presented at Second ILAS-II Science Team Meetings, March 26-28, 2001, Tsukuba, Japan.
Organization RF Program No. 992-35-15
- 588** Johnson, D. G.; and Cook, W. B.: Development of Fourier Transform Spectrometers for Space-Based Applications. Presented at NASA Earth Science Technology Conference, August 28-30, 2001, College Park, Maryland.
Organization RF Program No. 755-09-00
- 589** Katzberg, S. J.; and Garrison, J. L., Jr.: Surface Reflected Signals From the Global Positioning System for Ionospheric Measurements: Experimental Results at Aircraft Altitudes. *International Journal of Remote Sensing*, Volume 22, No. 4, March 2001, p. 663-689.
Organization RA Program No. 274-00-97

- 590** Kavaya, M. J.: Status and Plans for Global Wind Measurements in the United States. Presented at 11th Coherent Laser Radar Conference, July 1-6, 2001, Great Malvern, United Kingdom. In Proceedings.
Organization RF Program No. 344-99-00
- 591** Rinsland, C. P.; Meier, A.; Griffith, D. W.; and Chiou, L. S.: Ground-Base Measurements of Tropospheric CO, C₂H₆ and HCN From Australia at 34°S Latitude During 1997-1998. *Journal of Geophysical Research*, Volume 106, No. D18, September 27, 2001, p. 20,913-20,924.
Organization RE Program No. 622-68-51
- 592** Singh, U. N.; and Kavaya, M. J.: USA Activities Toward Future Global Wind Measurement. Presented at IGARSS 2001—International Geoscience and Remote Sensing Symposium, July 9-13, 2001, Sydney, Australia.
Organization RF Program No. 258-70-22
- 593** Singh, U. N.; and Yu, J.: Eye-Safe Lasers for Remote Sensing Applications. Presented at IGARSS 2001—International Geoscience and Remote Sensing Symposium, July 9-13, 2001, Sydney, Australia.
Organization RF Program No. 258-70-22
- 594** Smith, W. L.; Zhou, D. K.; Tsou, J. J.; and Larar, A. M.: High Spatial Resolution Atmospheric Structure Measurements With a Joint Airborne Infrared Interferometer and Microwave Radiometer System. Presented at 2001 Fourier Transform Spectroscopy/Optical Remote Sensing of the Atmosphere Topical Meeting and Tabletop Exhibit, February 5-8, 2001, Coeur d'Alene, Idaho.
Organization RE Program No. 622-96-00
- 595** Thomason, L. W.: SAGE II Middle Tropospheric Aerosol and Ozone Observation. Presented at Arctic Study of Tropospheric Aerosol and Radiation Science Team Meeting, July 19-20, 2001, Bremerhaven, Germany.
Organization RE Program No. 621-45-10
- 596** Thomason, L. W.; and Burton, S. P.: Lower Stratosphere Aerosol Variability During Clean Periods. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
Organization RE Program No. 621-45-20
- 597** Thomason, L. W.; Zawodny, J. M.; Burton, S. P.; and Iyer, N.: The SAGE II Algorithm: Version 6.0 and On-Going Developments. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
Organization RE Program No. 621-45-20

- 598** Zhou, D. K.; Smith, W. L.; and Larar, A. M.: Surface Temperature and Emissivity From Airborne Measurements of IR Radiance Spectra. Presented at American Geophysical Union 2001 Fall Meeting, December 10-14, 2001, San Francisco, California.
Organization RE Program No. 622-96-00

Category 45 Environment Pollution

- 599** Grant, W. B.; Browell, E. V.; Hair, J. W.; Butler, C. F.; DeYoung, R. J.; Brackett, V. G.; Brasseur, L. H.; Clayton, M. B.; Fenn, M. A.; Harper, D.; Notari, A.; Williams, J. A.; Moody, J. L.; and Wimmers, A. J.: Use of Remote Ozone and Aerosol Measurements and Back Trajectory Calculations in Interpretation of the Arctic Troposphere Springtime Ozone Maximum. Presented at American Geophysical Union 2001 Spring Meeting, May 29–June 2, 2001, Boston, Massachusetts. In Proceedings, Volume 82, No. 20, Paper No. A32A-06.
Organization RE Program No. 622-63-13
- 600** Ismail, S.; Browell, E. V.; Barnes, J. C.; Hair, J. W.; Koch, G. J.; Singh, U. N.; and Yu, J.: Studies Towards the Development of a Space-Based 2- μ m Lidar System for Profiling Atmospheric CO₂. Presented at IGARSS 2001—International Geoscience and Remote Sensing Symposium, July 9-13, 2001, Sydney, Australia.
Organization RE Program No. 622-29-26

Category 46 Geophysics

- 601** Al-Saadi, J. A.; Pierce, R. B.; Fairlie, T. D.; Kleb, M. M.; Eckman, R. S.; Grose, W. L.; Natarajan, M.; and Olson, J. R.: Response of Middle Atmosphere Chemistry and Dynamics to Volcanically Elevated Sulfate Aerosol: 3-Dimensional Coupled Model Simulations. *Journal of Geophysical Research*, Volume 106, No. D21, November 16, 2001, p. 27,255-27,276.
Organization RE Program No. 291-01-61
- 602** Anderson, J.; Russell, J. M., III; Zander, R.; Rinsland, C. P.; Murcray, F. H.; Notholt, J.; Jones, N. B.; Mahieu, E.; and Duchatelet, P.: A Unified Stratospheric Column HCI Climatology Constructed From HALOE and NDSC Measurements. Presented at Network for the Detection of Stratospheric Change (NDSC) 2001 Symposium, September 24-27, 2001, Arcachon, France.
Organization RE Program No. 622-68-51
- 603** Callis, L. B., Jr.: Transport of Mesospheric and Lower Thermospheric Odd Nitrogen Into the Stratosphere: Observations and Calculations. Presented at American Geophysical Union 2001 Spring Meeting, May 29–June 2, 2001, Boston, Massachusetts.
Organization RE Program No. 370-21-08
- 604** Callis, L. B., Jr.: Solar Forcing of the Stratosphere by Precipitating Electrons. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
Organization RE Program No. 321-21-08

- 605** Callis, L. B., Jr.: Cross-Stratopause Transport of Odd Nitrogen. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
 Organization RE Program No. 370-21-08
- 606** Callis, L. B., Jr.: Solar-Atmospheric Coupling by Electrons: Observational and Computational Evidence for Effects on the Climate of the Middle Atmosphere. Presented at Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) 10th Quadrennial STP Symposium, June 18-22, 2001, Longmont, Colorado.
 Organization RE Program No. 370-21-08
- 607** Callis, L. B., Jr.; Natarajan, M.; and Lambeth, J. D.: From Days to Decades: The Sun and the Earth Linked by a Tenuous Wind. Presented at American Geophysical Union 2001 Fall Meeting, December 10-14, 2001, San Francisco, California.
 Organization RE Program No. 370-21-08
- 608** Callis, L. B., Jr.; Natarajan, M.; and Lambeth, J. D.: Solar-Atmospheric Coupling by Electrons (SOLACE). 3. Comparisons of Simulations and Observations, 1979-1997, Issues and Implications. *Journal of Geophysical Research*, Volume 106, No. D7, April 16, 2001, p. 7523-7539.
 Organization RE Program No. 370-21-08
- 609** Cho, J. Y.; Newell, R. E.; Browell, E. V.; Grant, W. B.; Butler, C. F.; and Fenn, M. A.: Observation of Pollution Plume Capping by a Tropopause Fold. *Geophysical Research Letters*, Volume 28, No. 17, September 1, 2001, p. 3243-3246.
 Organization RE Program No. 291-07-07
- 610** Deaver, L. E.; McHugh, M. J.; and Remsberg, E. E.: Observations of Sunspots in UARS-HALOE Data. Presented at UARS 10th Anniversary Science Team Meeting, September 11-13, 2001, Greenbelt, Maryland.
 Organization RE Program No. 621-25-05
- 611** Douglass, A. R.; Schoeberl, M. R.; Kawa, S. R.; and Browell, E. V.: A Composite View of Ozone Evolution in the 1995-1996 Northern Winter Polar Vortex Developed From Airborne Lidar and Satellite Observations. *Journal of Geophysical Research*, Volume 106, No. D9, May 16, 2001, p. 9879-9895.
 Organization RE Program No. 291-07-07
- 612** Gordley, L. L.; Marshall, B. T.; Hervig, M. E.; McHugh, M. J.; Russell, J. M., III; Kemp, J.; Remsberg, E. E.; and Thompson, R. E.: High Precision Broadband Extinction Measurements Using Differential Solar Occultation. Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.
 Organization RE Program No. 665-25-38

- 613** Jones, N. B.; Wood, S. W.; Keys, J. G.; Connor, B. J.; Matthews, W. A.; Goldman, A.; Fogal, P. F.; Blatherwick, R. D.; Stephen, T. M.; Murcray, F. J.; and Rinsland, C. P.: Trends in Chlorine Source Strengths and Growth Rates From Two Primary NDSC Station in the Southern Hemisphere. Presented at Network for the Detection of Stratospheric Change (NDSC) 2001 Symposium, September 24-27, 2001, Arcachon, France.
Organization RE Program No. 622-68-51
- 614** Levine, A. S.: Earth Science Education and the Girl Scouts USA. Presented at American Geophysical Union 2001 Fall Meeting, December 10-14, 2001, San Francisco, California.
Organization RE Program No. 631-30-01
- 615** Levine, J. S.: Global Impacts and Climate Change. In *Forest Fires and Regional Haze in Southeast Asia*, P. Eaton, M. Radojevic, eds., Nova Science Publishers, 2001, p. 165-193.
Organization RE Program No. 274-00-00
- 616** Levine, J. S.: Global Warming and Global Fires. Presented at Colloquium Series, Department of Chemical and Environmental Engineering, March 2, 2001, Tucson, Arizona.
Organization RE Program No. 247-00-00
- 617** Levine, J. S.: The Mars Airplane Mission: Its Ups and Downs. Presented at Colloquium Series, Department of Aerospace and Mechanical Engineering, March 1, 2001, Tucson, Arizona.
Organization RE Program No. 274-00-00
- 618** Mills, F. P.; Cageao, R. P.; Sander, S. P.; Nemtchinov, V.; Jiang, Y.; Allen, M.; Richter, U.; Yung, Y. L.; Russell, J. M., III; and Remsberg, E. E.: OH Column Abundance Over JPL's Table Mountain Facility 1997-2000. Presented at American Geophysical Union 2001 Fall Meeting, December 10-14, 2001, San Francisco, California.
Organization RE Program No. 621-25-05
- 619** Olson, J. R.; Crawford, J. H.; Davis, D. D.; Chen, G.; Heikes, B. G.; and Snow, J.: The Treatment of Formaldehyde in Photochemical Boxmodels. Presented at Gordon Conference on Atmospheric Chemistry, June 17-22, 2001, Newport, Rhode Island.
Organization RE Program No. 622-14-61
- 620** Park, J. H.: Use of ILAS II Data for Retrieval of CO₂ Mixing Ratio. Presented at The Improved Limb Atmospheric Spectrometer Science Team Meeting, March 24-28, 2001, Tsukuba, Japan.
Organization RE Program No. 622-56-54
- 621** Pitts, M. C.; Thomason, L. W.; Trepte, C. R.; and Burton, S. P.: Joint SAGE III/ILAS II Studies. Presented at The 18th ILAS Science Team Meeting, March 26-28, 2001, Tsukuba, Japan.
Organization RE Program No. 229-10-32

- 622** Poole, L. R.: Long-Term Satellite and Ground-Based Observations of Stratospheric Aerosol. In *Long Term Changes and Trends in Atmosphere—Volume I*, Gufran Beig, New Age International Limited Publishers, 2000, p. 161-171.
Organization RE Program No. 622-65-35
- 623** Remsberg, E. E.; Bhatt, P. P.; and Deaver, L. E.: Ozone Changes in the Lower Stratosphere From the Halogen Occultation Experiment for 1991 Through 1999. *Journal of Geophysical Research*, Volume 106, No. D2, January 27, 2001, p. 1639-1654.
Organization RE Program No. 621-25-05
- 624** Remsberg, E. E.; and Deaver, L. E.: A Subbiennial Cycle in HALOE Temperatures in the Upper Stratosphere at Northern Middle Latitudes. Presented at UARS 10th Anniversary Science Team Meeting, September 11-13, 2001, Greenbelt, Maryland.
Organization RE Program No. 621-25-05
- 625** Remsberg, E. E.; Deaver, L. E.; and Lingenfelter, G. S.: The Quality of HALOE Temperatures in the Mesosphere. Presented at American Geophysical Union 2001 Spring Meeting, May 29–June 2, 2001, Boston, Massachusetts. In Proceedings, Paper No. SA32B-03.
Organization RE Program No. 665-25-38
- 626** Remsberg, E. E.; Natarajan, M.; Thompson, R. E.; and Gordley, L. L.: Model/Data Comparisons of NO₂ and HNO₃. Presented at American Geophysical Union 2001 Spring Meeting, May 29–June 2, 2001, Boston, Massachusetts. In Proceedings, Paper No. A62A-08.
Organization RE Program No. 665-25-38
- 627** Rinsland, C. P.; Zander, R.; Mahieu, E.; Demoulin, P.; Jones, N. B.; Goldman, A.; Stephen, T. M.; Murcray, F. J.; Chiou, L. S.; Russell, J. M., III; Anderson, J.; Sussmann, R.; and Notholt, J.: Stratospheric Inorganic Chlorine Decline From Ground-Based IR HCl and ClONO₂ Measurements at 6 NDSC Stations. Presented at Network for the Detection of Stratospheric Change (NDSC) 2001 Symposium, September 24-27, 2001, Arcachon, France.
Organization RE Program No. 622-68-51
- 628** Rosenlof, K. H.; Oltmans, S.; Kley, D.; Russell, J. M., III; Chiou, E-W.; Chu, W. P.; Johnson, D. G.; Kelly, K. K.; Michelsen, H. A.; Nedoluha, G.; Remsberg, E. E.; Toon, G. C.; and McCormick, M. P.: Stratospheric Water Vapor Increases over the Past Half-Century. *Geophysical Research Letters*, Volume 28, No. 7, April 1, 2001, p. 1195-1198.
Organization RE Program No. 621-25-05
- 629** Russell, J. M., III; Anderson, J.; Zander, R.; Rinsland, C. P.; Murcray, F. J.; Jones, N. B.; and Demoulin, P.: HALOE and NDSC Comparisons of Long-Term Changes in Stratospheric Constituents. Presented at Network for the Detection of Stratospheric Change (NDSC) 2001 Symposium, September 24-27, 2001, Arcachon, France.
Organization RE Program No. 622-68-51

- 630** Schmidlin, F. J.; Remsberg, E. E.; Beebe, A.; and Lingenfelter, G. S.: HALOE Temperature Data Comparison With Rocket-Borne Falling Sphere Temperatures. Presented at 15th ESA Symposium on European Rocket and Balloon Programmes and Related Research, May 28–June 1, 2001, Biarritz, France.

Organization RE

Program No. 621-25-05

- 631** Schmidlin, F. J.; Schauer, A. G.; and Remsberg, E. E.: Data Comparison: Satellite and Falling Sphere Temperatures. Presented at American Geophysical Union 2001 Fall Meeting, December 10-14, 2001, San Francisco, California.

Organization RE

Program No. 621-25-05

- 632** Vanek, M.; Nolt, I. G.; Tappan, N. D.; Ade, P. A.; Gannaway, F. C.; Hamilton, P. A.; Lee, C.; Evans, K. F.; Davis, J. E.; and Predko, S.: Far InfraRed Sensor for Cirrus (FIRSC): An Aircraft-Based Fourier Transform Spectrometer to Measure Cloud Radiance. *Applied Optics*, Volume 40, No. 13, May 1, 2001, p. 2169-2176.

Organization RF

Program No. 622-43-53

- 633** Yue, G. K.: Retrieving Aerosol Size Distributions and Integral Properties From Simulated Satellite Extinction Measurements. Presented at American Geophysical Union 2001 Fall Meeting, December 10-14, 2001, San Francisco, California.

Organization RE

Program No. 621-45-87

Category 47 Meteorology and Climatology

- 634** Avery, M. A.; Westberg, D. J.; Fuelberg, H. E.; Crawford, J. H.; Olson, J. R.; Pierce, R. B.; Fairlie, T. D.; Vay, S. A.; and Sachse, G. W.: Chemical and Dynamical Tropical-Midlatitude Interactions in the Pacific Subtropics During an Extended Cold Phase ENSO Event. Presented at American Geophysical Union 2001 Fall Meeting, December 10-14, 2001, San Francisco, California.

Organization RE

Program No. 622-63-08

- 635** Avery, M. A.; Westberg, D. J.; Fuelberg, H. E.; Newell, R. E.; Anderson, B. E.; Vay, S. A.; Sachse, G. W.; and Blake, D. R.: Chemical Transport Across the ITCZ in the Central Pacific During an ENSO Cold Phase Event in March/April of 1999. *Journal of Geophysical Research*, Volume 106, No. D23, December 16, 2001, p. 32,539-32,555.

Organization RE

Program No. 622-63-08

- 636** Ayers, J. K.; Minnis, P.; Smith, W. L., Jr.; Heck, P. W.; Fairall, C. W.; and Frisch, S.: Validation of Cloud Properties Derived From Geostationary Satellite Data Over the Southeastern Pacific. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.

Organization RE

Program No. 622-96-00

- 637** Ayers, J. K.; Minnis, P.; Smith, W. L., Jr.; Young, D. F.; and Nguyen, L.: Development of a Climatology of Cloud Properties Derived From GOES Over the Southeastern Pacific Ocean for PACS. Presented at 11th Conference on Satellite Meteorology and Oceanography, October 15-18, 2001, Madison, Wisconsin. In Proceedings, 176-179.
Organization RE Program No. 622-96-00
- 638** Barkstrom, B. R.: Digital Libraries and Data Scholarship. Presented at JCDL '01: 1st ACM/IEEE-CS Joint Conference on Digital Libraries, June 24-28, 2001, Roanoke, Virginia.
Organization RE Program No. 229-01-02
- 639** Barkstrom, B. R.; and Welch, C. H.: Observations of a Science Team Becoming Hypertext-Aware. Presented at Hypertext '01: The 12th ACM Conference on Hypertext and Hypermedia, August 14-18, 2001, Aarhus, Denmark.
Organization RE Program No. 229-01-02
- 640** Baum, B. A.; Frey, R. A.; Nasiri, S. L.; Gumley, L.; and Menzel, W. P.: Remote Sensing of Cloud Height and Cloud Thermodynamic Phase Using MODIS Data. Presented at IGARSS 2001—International Geoscience and Remote Sensing Symposium, July 9-13, 2001, Sydney, Australia.
Organization RE Program No. 229-01-04
- 641** Bess, T. D.; Wong, T.; Smith, G. L.; and Bush, K. A.: A Fifteen Year Time Series of Longwave and Shortwave Radiation Measurements for Environmental and Climate Change Studies. Presented at American Meteorological Society 81st Annual Meeting, January 14-19, 2001, Albuquerque, New Mexico.
Organization RE Program No. 229-01-02
- 642** Browell, E. V.; Ismail, S.; and Ferrare, R. A.: Advanced Airborne Water Vapor Lidar Systems and Their Evolution to Space. Presented at IGARSS 2001—International Geoscience and Remote Sensing Symposium, July 9-13, 2001, Sydney, Australia.
Organization RE Program No. 622-29-26
- 643** Cess, R. D.; Zhang, M.; Wielicki, B. A.; Young, D. F.; Zhou, Y-L.; and Nikitenki, Y.: The Influence of the 1998 El Nino Upon Cloud-Radiative Forcing Over the Pacific Warm Pool. *Journal of Climate*, Volume 14, No. 9, May 1, 2001, p. 2129-2137.
Organization RE Program No. 229-01-02
- 644** Chakrapani, V.; Spangenberg, D. A.; Doelling, D. R.; Minnis, P.; Trepte, Q.; and Arduini, R. F.: Improvements in AVHRR Daytime Cloud Detection Over the ARM NSA Site. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 622-96-00

- 645** Chambers, L. H.; Wielicki, B. A.; and Loeb, N. G.: Shortwave Flux From Satellite-Measured Radiance: A Theoretical Study Over Marine Boundary Layer Clouds. *Journal of Applied Meteorology*, Volume 40, No. 13, December 2001, p. 2144-2161.
Organization RE Program No. 229-01-02
- 646** Chen, Y.; Sun-Mack, S.; Minnis, P.; Young, D. F.; and Smith, W. L., Jr.: Surface Emissivity Derived for Infrared Remote Sensing From Satellites. Presented at 11th Conference on Satellite Meteorology and Oceanography, October 15-18, 2001, Madison, Wisconsin. In Proceedings, p. 512-515.
Organization RE Program No. 229-01-02
- 647** Chepfer, H.; Minnis, P.; Nguyen, L.; Young, D. F.; and Arduini, R. F.: Retrieval of Cirrus Cloud Ice Crystal Shapes Using Visible Reflectances From Dual-Satellite Measurements: Preparation of the Triana Mission. Presented at European Geophysical Society XXVI General Assembly, March 25-30, 2001, Nice, France. Paper No. OA073.
Organization RE Program No. 359-02-01
- 648** Chu, W. P.: SAGE III Inversion Methodology. Presented at International Centre for Theoretical Physics Course on Inverse Methods in Atmospheric Sciences, October 1-12, 2001, Trieste, Italy.
Organization RE Program No. 229-10-32
- 649** Dewitte, S.; Joukoff, A.; Crommelynck, D.; Lee, R. B., III; Helizon, R.; and Wilson, R. S.: Contribution of the Solar Constant (SOLCON) Program to the Long-Term Total Solar Irradiance Observations. *Journal of Geophysical Research*, Volume 106, No. A8, August 1, 2001, p. 7.
Organization RE Program No. 229-01-02
- 650** Doelling, D. R.; Chakrapani, V.; Minnis, P.; and Nguyen, L.: The Calibration of NOAA-AVHRR Visible Radiances with VIRS. Presented at 11th Conference on Satellite Meteorology and Oceanography, October 15-18, 2001, Madison, Wisconsin. In Proceedings, p. 614-617.
Organization RE Program No. 622-96-00
- 651** Doelling, D. R.; Minnis, P.; Nordeen, M. L.; Khaiyer, M. M.; and Palikonda, R.: Validation of TOA Broadband Fluxes Derived From GSM-5 for the TWP From 1998-2000. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 622-96-00
- 652** Doelling, D. R.; Minnis, P.; Spangenberg, D. A.; Chakrapani, V.; Mahesh, A.; Pope, S. K.; and Valero, F. P.: Cloud Radiative Forcing at the of the Atmosphere During Fire Ace Derived From AVHRR Data. *Journal of Geophysical Research*, Volume 106, No. D14, July 27, 2001, p. 15,279-15,296.
Organization RE Program No. 622-43-31

- 653** Doelling, D. R.; Rapp, A. D.; Khaiyer, M. M.; Minnis, P.; Smith, W. L., Jr.; Nguyen, L.; Haeffelin, M. P.; Tooman, T. P.; Valero, F. P.; and Asano, S.: Cloud Radiative Forcing Derived During ARESE-2. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
Organization RE Program No. 622-96-00
- 654** Dong, X.; Mace, G. G.; Minnis, P.; and Young, D. F.: Arctic Stratus Cloud Properties and Their Effect on the Surface Radiation Budget; Selected Cases From FIRE ACE. *Journal of Geophysical Research*, Volume 106, No. D14, July 27, 2001, p. 15,297-15,312.
Organization RE Program No. 622-43-31
- 655** Dong, X.; Minnis, P.; Smith, W. L., Jr.; and Mace, G. G.: Comparison of Boundary Layer Cloud Properties Using Surface and GOES Measurements at the ARM SGP Site. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 622-96-00
- 656** Duda, D. P.; Minnis, P.; and Nguyen, L.: Estimates of Cloud Radiative Forcing in Contrail Clusters Using GOES Imagery. *Journal of Geophysical Research*, Volume 106, No. D5, March 15, 2001, p. 4927-4937.
Organization RE Program No. 538-08-14
- 657** Ferrare, R. A.; Brasseur, L. H.; Turner, D. D.; Toonman, T.; Remer, L. A.; and Gao, B-C.: Evaluation of Terra MODIS Aerosol and Water Vapor Measurements Using ARM SGP Data. Presented at American Geophysical Union 2001 Spring Meeting, May 29–June 2, 2001, Boston, Massachusetts.
Organization RE Program No. 291-07-14
- 658** Ferrare, R. A.; Ismail, S.; Browell, E. V.; Barrick, J. D.; Sachse, G. W.; Kooi, S. A.; Heilman, L. A.; Clayton, M. B.; Brackett, V. G.; Mahoney, M. J.; Herman, R.; Bevilacqua, R. M.; and Podolske, J. R.: LASE Measurements of Water Vapor, Aerosols, and Clouds During SOLVE. Presented at 2001 Fourier Transform Spectroscopy/Optical Remote Sensing of the Atmosphere Topical Meeting and Tabletop Exhibit, February 5-8, 2001, Coeur d’Alene, Idaho. In Proceedings, Paper No. OMB4, p. 23-25.
Organization RE Program No. 622-65-34
- 659** Ferrare, R. A.; Ismail, S.; Browell, E. V.; Kooi, S. A.; Brasseur, L. H.; Brackett, V. G.; Clayton, M. B.; Mahoney, M. J.; Sachse, G. W.; and Barrick, J. D.: Lidar Measurements of Relative Humidity and Cirrus Clouds. Presented at IGARSS 2001—International Geoscience and Remote Sensing Symposium, July 9-13, 2001, Sydney, Australia.
Organization RE Program No. 622-65-34
- 660** Ferrare, R. A.; Turner, D. D.; Heilman, L. A.; Feltz, W. F.; Dubovik, O.; and Tooman, T. P.: Raman Lidar Measurements of the Aerosol Extinction-to-Backscatter Ratio Over the Southern Great Plains. *Journal of Geophysical Research*, Volume 106, No. D17, September 16, 2001, p. 20,333-20,348.
Organization RE Program No. 622-96-00

- 661** Ferrare, R. A.; Turner, D. D.; Heilman, L. A.; Tooman, T. P.; Goldsmith, J. E.; Dubovik, O.; and Ogren, J. A.: Raman Lidar Profiling of Water Vapor and Aerosols Over the Southern Great Plains. Presented at 2001 Fourier Transform Spectroscopy/Optical Remote Sensing of the Atmosphere Topical Meeting and Tabletop Exhibit, February 5-8, 2001, Coeur d'Alene, Idaho. In Proceedings, Paper No. OMB1, p. 14-16.
 Organization RE Program No. 622-96-00
- 662** Fishman, J.: Geostationary Satellites: Ideal Platforms for Tropospheric Chemistry Studies. Presented at American Geophysical Union 2001 Spring Meeting, May 29–June 2, 2001, Boston, Massachusetts.
 Organization RE Program No. 622-56-61
- 663** Fishman, J.; and Balok, A. E.: An Update of Tropospheric Ozone Residual Methodology Using TOMS and SBUV Measurements as a Surrogate for OMI Observations. Presented at 5th Ozone Monitoring Instrument (OMI) International Science Team Meeting, June 18-20, 2001, Utrecht, The Netherlands.
 Organization RE Program No. 229-07-27
- 664** Garreaud, R.; Rutllant, J.; Quintana, J.; Carrasco, J.; and Minnis, P.: CIMAR-5: A Snapshot of the Lower Troposphere Over the Subtropical Southeast Pacific. *Bulletin of the American Meteorological Society*, Volume 82, No. 10, October 2001, p. 2193-2207.
 Organization RE Program No. 622-96-00
- 665** Gupta, S. K.; Kratz, D. P.; Stackhouse, P. W., Jr.; and Wilber, A. C.: The Langley Parameterized Shortwave Algorithm (LPSA) for Surface Radiation Budget Studies—Version 1.0. NASA/TP-2001-211272, December 2001, 31 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp211272.pdf>
 Organization RE Program No. 229-01-02
- 666** Heck, P. W.; Minnis, P.; Young, D. F.; Wielicki, B. A.; and Sun-Mack, S.: Global Cloud Properties Derived From Multispectral VIRS and MODIS Data for CERES. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
 Organization RE Program No. 229-01-02
- 667** Ho, S-P.; Lin, B.; and Minnis, P.: Estimation of Cloud Properties Over Oceans Using VIRS and TMI Measurements on the TRMM Satellite. Presented at American Meteorological Society 81st Annual Meeting, January 14-19, 2001, Albuquerque, New Mexico.
 Organization RE Program No. 229-10-02
- 668** Hu, Y-X.; Winker, D. M.; Yang, P.; Baum, B. A.; Poole, L. R.; and Vann, L. B.: Identification of Cloud Phase From PICASSO-CENA Lidar Depolarization: A Multiple Scattering Sensitivity Study. *Journal of Quantitative Spectroscopy and Radiative Transfer*, Volume 70, No. 4–6, August 15, 2001, p. 569-579.
 Organization RE Program No. 259-40-01

- 669** Hu, Y. X.: Multiple Scattering Effect: Space-Based Lidar Depolarization Simulation and Cloud Particle Shape Determination. Presented at 6th International Congress on Optical Particle Characterization, April 2-5, 2001, Brighton, United Kingdom.
Organization RE Program No. 259-40-01
- 670** Kato, S.; Clothiaux, E.; and Xu, K-M.: Cloud Height Statistics Derived From ARM Millimeter Cloud Radar. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 229-10-02
- 671** Kato, S.; Loeb, N. G.; Geier, E. B.; and Nolan, S. K.: Influence of Cloud Contamination on Satellite-Derived Estimates of the Top-of-Atmosphere Direct Radiative Effect of Aerosols Over Ocean. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
Organization RE Program No. 229-01-02
- 672** Kawamoto, K.; Minnis, P.; and Smith, W. L., Jr.: Cloud Overlapping Detection Algorithm Using Solar and IR Wavelengths With GOES Data Over the ARM/SGP Site. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 622-96-00
- 673** Khaiyer, M. M.; Rapp, A. D.; Doelling, D. R.; Nordeen, M. L.; Minnis, P.; Smith, W. L., Jr.; and Nguyen, L.: A 3-Year Climatology of Cloud and Radiative Properties Derived From GOES-8 Data Over the Southern Great Plains. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 622-96-00
- 674** Krueger, S. K.; Luo, Y.; Lazarus, S. M.; and Xu, K-M.: Interactions of Cumulus Convection and the Boundary Layer Over the Southern Great Plains. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 229-01-02
- 675** Krueger, S. K.; Luo, Y.; Mace, G. G.; and Xu, K-M.: Cirrus Cloud Statistics From a Cloud-Resolving Model Simulation Compared to Cloud Radar Observations. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 229-01-02
- 676** Larar, A. M.; Smith, W. L.; Zhou, D. K.; Browell, E. V.; Ferrare, R. A.; Revercomb, H.; and Tobin, D. C.: Spectral Radiance Validation Studies Using NAST-I and Other Independent Measurement Systems. Presented at SPIE Optical Spectroscopic Techniques and Instrumentation for Atmospheric and Space Research IV, Conference, July 30–August 2, 2001, San Diego, California.
Organization RE Program No. 622-96-00

- 677** Lin, B.; Minnis, P.; Fan, A.; Charlock, T. P.; Young, D. F.; and Hu, Y-X.: The Surface and TOA Heat Budgets Over Tropical Oceans Observed by TRMM Satellite. Presented at 11th Conference on Interaction of the Sea and Atmosphere, May 14-18, 2001, San Diego, California. In Proceedings, Paper No. 7.11.
 Organization RE Program No. 229-01-02
- 678** Lin, B.; Minnis, P.; Fan, A.; Curry, J. A.; Gerber, H.; and Hobbs, P. V.: Comparison of Cloud Liquid Water Paths Derived From in Situ and Microwave Radiometer Data Taken During the SHEBA/FIREACE. *Geophysical Research Letters*, Volume 28, No. 6, March 15, 2001, p. 975-978.
 Organization RE Program No. 622-43-31
- 679** Lin, B.; Minnis, P.; Fan, A.; Spangenberg, D. A.; and Uttal, T.: Diurnal Variations in Polar Clouds Observed From Surface-Based Microwave Radiometer. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
 Organization RE Program No. 229-01-02
- 680** Lin, B.; Minnis, P.; Fan, A.; and Young, D. F.: Estimations of Column Water Amounts Over Arctic Regions Using Ground-Based Thermal Microwave and Infrared Measurements. Presented at American Meteorological Society 81st Annual Meeting, January 14-19, 2001, Albuquerque, New Mexico.
 Organization RE Program No. 229-01-02
- 681** Loeb, N. G.; and Minnis, P.: A Statistical Approach for Reducing Angle-Dependent Biases in Satellite Cloud Optical Depth Retrievals. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
 Organization RE Program No. 229-01-02
- 682** Minnis, P.; Ayers, J. K.; Palikonda, R.; Doelling, D. R.; Schumann, U.; and Gierens, K. M.: Changes in Cirrus Cloudiness and Their Relationship to Contrails. Presented at American Meteorological Society 81st Annual Meeting, January 14-19, 2001, Albuquerque, New Mexico. In Proceedings, p. 239-242.
 Organization RE Program No. 714-01-27
- 683** Minnis, P.; Doelling, D. R.; Chakrapani, V.; Spangenberg, D. A.; Nguyen, L.; Palikonda, R.; Uttal, T.; Arduini, R. F.; and Shupe, M.: Cloud Coverage During FIRE ACE Derived From AVHRR Data. *Journal of Geophysical Research*, Volume 106, No. D14, July 27, 2001, p. 15,215-15,232.
 Organization RE Program No. 622-43-31
- 684** Minnis, P.; Huang, J.; and Doelling, D. R.: Earth Radiation Budget From Triana, Correction for Anisotropic Radiances. Presented at European Geophysical Society XXVI General Assembly, March 25-30, 2001, Nice, France. Paper No. OA076.
 Organization RE Program No. 359-02-01

- 685** Minnis, P.; Huang, J.; Doelling, D. R.; and Valero, F. P.: Simulation and Correction to Triana Viewed Earth Radiation Budget With ERBE Data. Proceedings of SPIE 8th International Symposium on Remote Sensing, September 17-21, 2001, Toulouse, France.
Organization RE Program No. 359-02-01
- 686** Minnis, P.; Nguyen, L.; Young, D. F.; and Chepfer, H.: Triana, An Ideal Platform for Continuous Multiangle Viewing of Earth. Presented at European Geophysical Society XXVI General Assembly, March 25-30, 2001, Nice, France.
Organization RE Program No. 229-01-02
- 687** Minnis, P.; Smith, W. L., Jr.; and Young, D. F.: Cloud Macro- and Microphysical Properties Derived From GOES Over the ARM SGP Domain. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 622-96-00
- 688** Minnis, P.; Smith, W. L., Jr.; Young, D. F.; Nguyen, L.; Rapp, A. D.; Heck, P. W.; Sun-Mack, S.; Trepte, Q.; and Chen, Y.: A Near-Real Time Method for Deriving Cloud and Radiation Properties From Satellites for Weather and Climate Studies. Presented at 11th Conference on Satellite Meteorology and Oceanography, October 15-18, 2001, Madison, Wisconsin. In Proceedings, p. 477-480.
Organization RE Program No. 622-96-00
- 689** Minnis, P.; Young, D. F.; Smith, W. L., Jr.; Dong, X.; Mace, G. G.; and Sun-Mack, S.: Validation of Cloud Properties Derived From GOES, VIRS, and MODIS Over ARM Sites. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
Organization RE Program No. 229-01-02
- 690** Minnis, P.; Young, D. F.; Wielicki, B. A.; Sun-Mack, S.; Trepte, Q.; Chen, Y.; and Heck, P. W.: Global Cloud Properties From CERES Using VIRS and MODIS. Presented at European Geophysical Society XXVI General Assembly, March 25-30, 2001, Nice, France.
Organization RE Program No. 229-01-02
- 691** Mlynczak, M. G.; Kratz, D. P.; Johnson, D. G.; and Mertens, C. J.: The Far-Infrared: A Frontier in Remote Sensing of Earth's Climate and Energy Balance. Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.
Organization RE Program No. 229-01-02
- 692** Mlynczak, M. G.; Morgan, F.; Yee, J. H.; Espy, P. J.; Murtagh, D.; Marshall, B. T.; and Schmidlin, F. J.: Simultaneous Measurements of the $O_2(^1\Delta)$ and $O_2(^1\Sigma)$ Airglows and Ozone in the Daytime Mesosphere. *Geophysical Research Letters*, Volume 28, No. 6, March 15, 2001, p. 999-1002.
Organization RE Program No. 880-02-00

- 693** Mlynczak, M. G.; and Roble, R. G.: Observations of the Atmospheric Energy Budget From the Edge of Space to the Surface of the Earth. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
 Organization RE Program No. 229-01-02
- 694** Nguyen, L.; Minnis, P.; Ayers, J. K.; and Doelling, D. R.: Intercalibration of Meteorological Satellite Imagers Using VIRS, ATSR-2 and MODIS. Presented at 11th Conference on Satellite Meteorology and Oceanography, October 15-18, 2001, Madison, Wisconsin.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-11csmo-ln.pdf>
 Organization RE Program No. 229-01-02
- 695** Nguyen, L.; Minnis, P.; Ayers, J. K.; Doelling, D. R.; Smith, W. L., Jr.; and Dong, X.: Intercalibration of Meteorological Satellite Imagers Using AVHRR, VIRS, ATSR-2 and MODIS. Presented at American Geophysical Union 2001 Spring Meeting, May 29–June 2, 2001, Boston, Massachusetts. Paper No. A21B-04.
 Organization RE Program No. 229-01-02
- 696** Nordeen, M. L.; Doelling, D. R.; Khaiyer, M. M.; Rapp, A. D.; Minnis, P.; and Nguyen, L.: GSM-5 Satellite-Derived Cloud Properties Over the Tropical Western Pacific. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
 Organization RE Program No. 622-96-00
- 697** Nordeen, M. L.; Minnis, P.; Doelling, D. R.; Pethick, D. G.; and Nguyen, L.: Satellite Observations of Cloud Plumes Generated by Nauru. *Geophysical Research Letters*, Volume 28, No. 4, February 15, 2001, p. 631-634.
 Organization RE Program No. 622-96-00
- 698** Palikonda, R.; Heck, P. W.; Minnis, P.; Sun-Mack, S.; and Trepte, Q.: Contrail Cover and Radiative Properties From High-Resolution Satellite Data. Presented at 11th Conference on Satellite Meteorology and Oceanography, October 15-18, 2001, Madison, Wisconsin. In Proceedings, p. 508-511.
 Organization RE Program No. 621-82-80
- 699** Pickering, K. E.; Thompson, A. M.; Kim, H.; DeCaria, A. J.; Pfister, L.; Avery, M. A.; Blake, D. R.; Crawford, J. H.; Heikes, B. G.; Sachse, G. W.; Sandholm, S. T.; and Talbot, R. W.: Trace Gas Transport and Scavenging in PEM Tropics-B South Pacific Convergence Zone Convection. *Journal of Geophysical Research*, Volume 106, No. D23, December 16, 2001, p. 32,591-32,608.
 Organization RE Program No. 622-63-08
- 700** Pincus, R.; Klein, S. A.; and Xu, K-M.: Using Cloud Resolving Model Data to Characterize the Sub-Grid Scale Distribution of Thermodynamic Quantities in Large Scale Models. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
 Organization RE Program No. 229-01-02

- 701** Priestley, K. J.; Green, R. N.; Haeffelin, M. P.; Lee, R. B., III; and Loeb, N. G.: A Comprehensive Radiometric Validation Protocol for the CERES Earth Radiation Budget Climate Record Sensors. Presented at IGARSS 2001—International Geoscience and Remote Sensing Symposium, July 9-13, 2001, Sydney, Australia.
Organization RE Program No. 229-01-02
- 702** Rapp, A. D.; Doelling, D. R.; Khaiyer, M. M.; Minnis, P.; Smith, W. L., Jr.; Nguyen, L.; Haeffelin, M. P.; Valero, F. P.; and Asano, S.: Comparison of Shortwave Cloud Radiative Forcing Derived From ARM SGP Surface and GOES-8 Satellite Measurements During ARESE I and ARESE II. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
Organization RE Program No. 622-96-00
- 703** Rapp, A. D.; Doelling, D. R.; Minnis, P.; and Smith, W. L., Jr.: Comparison of TOA Shortwave Albedo and Atmospheric Solar Absorption Derived From GOES-8, CERES, Aircraft, and Surface Measurements During ARESE II With Model Calculations. Presented at Chapman Conference on Atmospheric Absorption of Solar Radiation, August 13-17, 2001, Estes Park, Colorado.
Organization RE Program No. 229-01-02
- 704** Rault, D. F.: Oxygen a Band Spectrometer (ABS) for Cloud/Aerosol Properties Retrieval. Presented at 2001 Fourier Transform Spectroscopy/Optical Remote Sensing of the Atmosphere Topical Meeting and Tabletop Exhibit, February 5-8, 2001, Coeur d'Alene, Idaho.
Organization RE Program No. 229-10-32
- 705** Smith, W. L.: The GIFTS Contribution to the Global Observing System. Presented at CGMS Workshop on Long-Term Future of the Basic of the Basic Sounding and Imaging Missions, April 23-24, 2001, Geneva, Switzerland.
Organization RE Program No. 282-10-01
- 706** Smith, W. L.: The Geosynchronous Imaging Fourier Transform Spectrometer (GIFTS)—A Revolutionary Weather Satellite Observing Tool. Presented at International Symposium on Spectral Sensing Research (ISSR) 2001, June 10-15, 2001, Quebec, Canada.
Organization RE Program No. 282-10-01
- 707** Smith, W. L., Jr.; Charlock, T. P.; Wielicki, B. A.; Kahn, R.; Martins, V.; Gatabe, C.; Hobbs, P. V.; Purgold, G. C.; Redemann, J.; Remer, L. A.; and Rutledge, C. K.: The Chesapeake Lighthouse and Aircraft Measurements for Satellites (CLAMS) Experiment. Presented at 11th Conference on Satellite Meteorology and Oceanography, October 15-18, 2001, Madison, Wisconsin. In Proceedings, p. 492-495.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-11csmo-wls.pdf>
Organization RE Program No. 229-10-02

- 708** Spangenberg, D. A.; Minnis, P.; Trepte, Q.; Chakrapani, V.; and Doelling, D. R.: Development of an Automated Arctic Cloud Mask Using Clear-Sky Satellite Observations Taken Over the SHEBA and ARM NSA Sites. Presented at Sixth Conference on Polar Meteorology and Oceanography, May 14-18, 2001, San Diego, California. In Proceedings, p. 246-249.
 Organization RE Program No. 229-01-02
- 709** Stackhouse, P. W., Jr.; Cox, S. J.; Gupta, S. K.; Chiacchio, M.; and Mikovitz, J.: Multi-Year Analysis of Surface Fluxes From Release 2 of the WCRP/GEWEX Surface Radiation Budget Project. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
 Organization RE Program No. 291-01-19
- 710** Trepte, Q.; Minnis, P.; Arduini, R. F.; Chen, Y.; Sun-Mack, S.; Chakrapani, V.; Doelling, D. R.; and Dong, X.: Development of a Daytime Polar Cloud Mask Using Theoretical Models of Near-Infrared Bidirectional Reflectance for ARM and CERES. Presented at Sixth Conference on Polar Meteorology and Oceanography, May 14-18, 2001, San Diego, California. In Proceedings, p. 242-245.
 Organization RE Program No. 229-01-02
- 711** Wang, D.; and Xu, K-M.: Effects of Land-Surface Physics on the Cloud-Resolving Simulations During the ARM Summer 1997 IOP. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
 Organization RE Program No. 229-01-02
- 712** Wang, P-H.; Veiga, R. E.; Vann, L. B.; Minnis, P.; and Kent, G. S.: A Further Study of the Method for Estimation of SAGE II Opaque Cloud Occurrence. *Journal of Geophysical Research*, Volume 106, No. D12, June 27, 2001, p. 12,603-12,614.
 Organization RE Program No. 622-43-31
- 713** Xie, S. C.; Cederwall, R. T.; Yio, J. J.; and Xu, K-M.: Intercomparison and Evaluation of Cumulus Parameterizations Under Summertime Midlatitude Continental Conditions. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
 Organization RE Program No. 229-01-02
- 714** Xu, K-M.; Cederwall, R. T.; Xie, S. C.; and Yio, J. J.: Comparison of ARM Cloud Property Observations With ARM Simulations. Presented at 2001 ARM Program Science Team Meeting, March 19-23, 2001, Atlanta, Georgia.
 Organization RE Program No. 229-01-02
- 715** Xu, K-M.; and Randall, D. A.: Updraft and Downdraft Statistics of Simulated Tropical and Midlatitude Cumulus Convection. *Journal of the Atmospheric Sciences*, Volume 58, No. 13, July 2001, p. 1630-1649.
 Organization RE Program No. 229-10-02

- 716** Xu, K-M.; and Randall, D. A.: Explicit Simulation of Cumulus Ensembles With the GATE Phase III Data: Budgets of a Composite Easterly Wave. *Quarterly Journal of the Royal Meteorological Society*, Volume 127, No. 575, July 2001, Part A, p. 1571-1592.
Organization RE Program No. 229-10-02
- 717** Xu, K-M.; and Randall, D. A.: Reply to “Comments on ‘A Sensitivity Study of Radiative-Convection Equilibrium in the Tropics With a Convection-Resolving Model’”. *Journal of the Atmospheric Sciences*, Volume 58, No. 10, May 15, 2001, p. 1334-1338.
Organization RE Program No. 229-01-02
- 718** Yang, P.; Gao, B-C.; Baum, B. A.; Hu, Y-X.; Wiscombe, W.; Mishchenko, M. I.; Tsay, S-C.; and Winker, D. M.: Radiative Properties of Cirrus Clouds in the Infrared (8-13 μm) Spectral Region. *Journal of Quantitative Spectroscopy and Radiative Transfer*, Volume 70, No. 4-6, August 15, 2001, p. 473-504.
Organization RE Program No. 259-40-01
- 719** Yang, P.; Gao, B-C.; Baum, B. A.; Hu, Y. X.; Wiscombe, W.; Mishchenko, M. I.; Winker, D. M.; and Nasiri, S. L.: Asymptotic Solutions for Optical Properties of Large Particles With Strong Absorption. *Applied Optics*, Volume 40, No. 9, March 2001, p. 1532-1547.
Organization RE Program No. 229-01-04
- 720** Yang, P.; Gao, B-C.; Baum, B. A.; Wiscombe, W.; Hu, Y. X.; Nasiri, S. L.; Soulen, P. F.; Heymsfield, A. J.; McFarquhar, G.; and Miloshevich, L. M.: Sensitivity of Cirrus Bidirectional Reflectance to Vertical Inhomogeneity of Ice Crystal Habits and Size Distributions for Two Moderate-Resolution Imaging Spectroradiometer (MODIS) Bands. *Journal of Geophysical Research*, Volume 106, No. D15, August 16, 2001, p. 17,267-17,292.
Organization RE Program No. 229-01-04
- 721** Yi, H. Y.; Minnis, P.; Nguyen, L.; and Doelling, D. R.: A Proposed Multiangle Satellite Dataset Using GEO, LEO and Triana. Presented at 11th Conference on Satellite Meteorology and Oceanography, October 15-18, 2001, Madison, Wisconsin. In Proceedings, p. 570-573.
Organization RE Program No. 359-02-01
- 722** Young, D. F.; Minnis, P.; Nguyen, L.; Heck, P. W.; and Sun-Mack, S.: A Comparison of Cloud Particle Size Retrievals Using the VIRS 3.7 μm and 1.6 μm Channels. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
Organization RE Program No. 229-10-02

Category 48 Oceanography

- 723** Emmitt, G. D.; and Kavaya, M. J.: Ocean and River Surface Current Observations Using CDWL. Presented at 11th Coherent Laser Radar Conference, July 1-6, 2001, Great Malvern, United Kingdom. In Proceedings, p. 23-26.
Organization RF Program No. 344-96-00

- 724** Grose, W. L.; and Lingenfelser, G. S.: Evaluation of Stratospheric Dynamics and Transport of the LaRC Impact Model. Presented at 8th Scientific Assembly of International Association of Meteorology and Atmospheric Sciences, July 10-18, 2001, Innsbruck, Austria.
Organization RE Program No. 291-01-61

Life Sciences

Category 54 Man/System Technology and Life Support

- 725** DeBeus, R. T.; Palsson, O. S.; Pope, A. T.; Ball, J. D.; and Turner, M. D.: Comparison of Videogame and Standard EEG Biofeedback With ADHD Children: Results of the First Concept Study. Presented at Society for Neuronal Regulation 9th Annual Conference, October 27-30, 2001, Monterey, California.
Organization RD Program No. 711-50-21
- 726** Pope, A. T.; and Palsson, O. S.: Helping Video Games “Rewire Our Minds. Presented at Playing By the Rules—The Cultural Policy Challenges of Video Games, October 26-27, 2001, Chicago, Illinois.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-pbr-atp.pdf>
Organization RD Program No. 711-50-21
- 727** Pope, A. T.; and Palsson, O. S.: Small-Scale Technologies for Physiological Self-Regulation. Presented at Convergent Technologies for Improving Human Performance, December 3-4, 2001, Arlington, Virginia.
Organization RD Program No. 711-50-21
- 728** Pope, A. T.; and Palsson, O. S.: Instrument Functionality Feedback (IFF): A New Biofeedback Training Concept. Presented at Association for Applied Psychophysiology and Biofeedback 32nd Annual Meeting, March 29–April 1, 2001, Raleigh, North Carolina.
Organization RD Program No. 711-50-21
- 729** Prinzel, L. J., III; DeVries, H.; Freeman, F. G.; and Mikula, P.: Examination of Automation-Induced Complacency and Individual Difference Variates. NASA/TM-2001-211413, December 2001, 48 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211413.pdf>
Organization RD Program No. 711-50-21
- 730** Prinzel, L. J., III; and Pope, A. T.: Psychophysiological Self-Regulation and Adaptive Task Allocation for Enhancing “In-the-Loop” Supervisory Control. Presented at Association for Applied Psychophysiology and Biofeedback 32nd Annual Meeting, March 29–April 1, 2001, Raleigh, North Carolina.
Organization RD Program No. 711-50-21

- 731** Prinzel, L. J., III; Pope, A. T.; and Freeman, F. G.: Application of Physiological Self-Regulation and Adaptive Task Allocation Techniques for Controlling Operator Hazardous States of Awareness. NASA/TM-2001-211015, June 2001, 22 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211015.pdf>
 Organization RD Program No. 711-50-21
- 732** Prinzel, L. J., III; Pope, A. T.; Freeman, F. G.; Scerbo, M. W.; and Mikulka, P. J.: Empirical Analysis of EEG and ERPs for Psychophysiological Adaptive Task Allocation. NASA/TM-2001-211016, June 2001, 60 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211016.pdf>
 Organization RD Program No. 711-50-21
- 733** Scerbo, M. W.; Freeman, F. G.; Mikulka, P. J.; Parasuraman, R.; Di Nocero, F.; and Prinzel, L. J., III: The Efficacy of Psychophysiological Measures for Implementing Adaptive Technology. NASA/TP-2001-211018, June 2001, 71 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp211018.pdf>
 Organization RD Program No. 711-50-21
- 734** Schutte, P. C.: Better Machines or Better Humans? *Flight Deck International*, July 2000, p. 28-33.
 Organization RD Program No. 522-61-31
- 735** Stewart, D.; Prinzel, L. J., III; Pope, A. T.; and Palsson, O. S.: Stress Counter-Response Training: Flight Simulation ANS Biofeedback Training for Pilots. Presented at Association for Applied Psychophysiology and Biofeedback 32nd Annual Meeting, March 29–April 1, 2001, Raleigh, North Carolina.
 Organization RD Program No. 711-50-21

Mathematical and Computer Sciences

Category 59 Mathematical and Computer Sciences (General)

- 736** Anon.: Semiannual Report—April 1, 2000 Through September 30, 2000. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210655, January 2001, 65 p.
 Organization A Program No. 505-90-52
- 737** Anon.: Semiannual Report—October 1, 2000 Through March 31, 2001. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210869, May 2001, 60 p.
 Organization A Program No. 505-90-52

- 738** Atkins, H. L.; and Shu, C-W.: Analysis of Preconditioning and Relaxation Operators for the Discontinuous Galerkin Method Applied to Diffusion. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2554.
 Organization RB Program No. 706-31-21
- 739** Fox, C. H., Jr.: AeroCOMPASS Web-Based Integrated Research Management System. Presented at 2001 SATA Conference, June 11-14, 2001, Seattle, Washington.
 Organization RB Program No. 992-35-12
- 740** Kincaid, R. K.; Weber, M.; and Sobieszczanski-Sobieski, J.: Performance of a Bell-Curve Based Evolutionary Optimization Algorithm. *Structures and Multidisciplinary Optimization*, Volume 21, June 2001, p. 261-271.
 Organization RA Program No. 735-10-31
- 741** Kodiyalam, S.; and Sobieszczanski-Sobieski, J.: Alternate Sampling Methods for Use With Multidisciplinary Design Optimization in a High Performance Computing Environment. Presented at 2001 ASME Design Engineering Technical Conferences, September 9-12, 2001, Pittsburgh, Pennsylvania. Paper No. DETC2001/DAC-21081.
 Organization RA Program No. 735-10-31
- 742** Kodiyalam, S.; and Sobieszczanski-Sobieski, J.: Multidisciplinary Design Optimization—Some Formal Methods, Framework Requirements, and Application to Vehicle Design. *International Journal for Vehicle Design*, Volume 25, No. 1/2, 2001, p. 3-22.
 Organization RA Program No. 755-10-31
- 743** Plunkett, C. L.; Striz, A. G.; and Sobieszczanski-Sobieski, J.: Efficiency Improvements to the Displacement Based Multilevel Structural Optimization Algorithm. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1552.
 Organization RA Program No. 735-10-31
- 744** Yang, R. J.; Gu, L.; Tho, C. H.; and Sobieszczanski-Sobieski, J.: Multidisciplinary Design Optimization of a Full Vehicle With High Performance Computing. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA 2001-1273.
 Organization RA Program No. 735-10-31

Category 60 Computer Operations and Hardware

- 745** Ciardo, G.; Luetgen, G.; and Siminiceanu, R.: Saturation: An Efficient Iteration Strategy for Symbolic State-Space Generation. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210663, ICASE Report No. 2001-5, February 2001, 21 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-5.pdf>
 Organization A Program No. 505-90-52

- 746** Dowek, G.; Munoz, C.; and Geser, A. E.: Tactical Conflict Detection and Resolution in a 3-D Airspace. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210853, ICASE Report No. 2001-7, April 2001, 20 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-7.pdf>
 Organization A Program No. 505-90-52
- 747** Eidson, T. M.: A Component-Based Programming Model for Composite, Distributed Applications. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210873, ICASE Report No. 2001-15, May 2001, 18 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-15.pdf>
 Organization A Program No. 505-90-52
- 748** Eidson, T. M.; and Patrick, M. L.: ICASE Workshop on Programming Computational Grids. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211224, ICASE Interim Report 38, September 2001, 21 p.
<ftp://ftp.icase.edu/pub/interim/Interim38.pdf>
 Organization A Program No. 505-90-52
- 749** Heggernes, P.; Eisenstat, S. C.; Kumfert, G.; and Pothén, A.: The Computational Complexity of Minimum Degree Algorithm. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211421, ICASE Report No. 2001-42, December 2001, 16 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-42.pdf>
 Organization A Program No. 505-90-52
- 750** Hess, R.; and Malekpour, M. R.: Rapid Soft Fault Recovery. Presented at 2001 International Conference on Lightning and Static Electricity, September 11-13, 2001, Seattle, Washington. Paper No. 2001-01-2937.
 Organization RD Program No. 728-30-10
- 751** Luetzgen, G.; and Vogler, W.: A Faster-Than Relation for Asynchronous Processes. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210651, ICASE Report No. 2001-2, January 2001, 35 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-2.pdf>
 Organization A Program No. 505-90-52
- 752** Munoz, C.; and Mayero, M.: Real Automation in the Field. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211271, ICASE Interim Report 39, December 2001, 14 p.
<ftp://ftp.icase.edu/pub/interim/Interim37.pdf>
 Organization A Program No. 505-90-52

- 753** Parikh, S. M.: An Analysis Mechanism for Automation in Terminal Area. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211235, ICASE Report No. 2001-32, October 2001, 15 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-32.pdf>
 Organization A Program No. 505-90-52
- 754** Prieto, M.; Montero, R. S.; and Llorente, I. M.: A Parallel Multigrid Solver for Viscous Flows on Anisotropic Structured Grids. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211238, ICASE Report No. 2001-34, October 2001, 24 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-34.pdf>
 Organization A Program No. 505-90-52
- 755** Stals, L.: The Solution of Radiation Transport Equations With Adaptive Finite Elements. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211230, ICASE Report No. 2001-29, October 2001, 20 p.
<ftp://ftp.icas.edu/pub/techreports/2001/2001-29.pdf>
 Organization A Program No. 505-90-52

Category 61 Computer Programming and Software

- 756** Butler, R. W.; Carreno, V. A.; Dowek, G.; and Munoz, C.: Formal Verification of Conflict Detection Algorithms. Presented at 11th Advanced Research Working Conference on Correct Hardware Design and Verification Methods, September 4-7, 2001, Livingston, Scotland.
 Organization RD Program No. 727-01-22
- 757** Chung, V. I.; and Hutchinson, B. K.: A Unique Software System for Simulation-to-Flight Research. Presented at AIAA Modeling and Simulation Technologies Conference & Exhibit, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4057.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-4057.pdf>
 Organization RD Program No. 992-30-11
- 758** Cooper, E. G.; Morris, A. T.; Kohl, R.; and Rahmani, S.: Software. *Aerospace America*, Volume 39, No. 12, December 2001, p. 53.
 Organization RD Program No. 728-30-10
- 759** Hammond, D. P.: Parallelization of Program to Optimize Simulated Trajectories (POST3D). (L-70750D Raytheon Technical Services Company.) NASA/CR-2001-211250, November 2001, 34 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211250.pdf>
 Organization RA Program No. 725-10-31
- 760** Hayhurst, K. J.; and Holloway, C. M.: Challenges in Software Aspects of Aerospace Systems. Presented at 26th Annual Software Engineering Workshop, November 27-29, 2001, Greenbelt, Maryland.
 Organization RD Program No. 728-30-10

- 761** Hayhurst, K. J.; and Veerhusen, D. S.: A Practical Approach to Modified Condition/Decision Coverage. Presented at 20th Digital Avionics Systems Conference, October 14-18, 2001, Daytona Beach, Florida.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-20dasc-kjh.pdf>
 Organization RD Program No. 728-30-10
- 762** Hayhurst, K. J.; Veerhusen, D. S.; Chilenski, J. J.; and Rierison, L. K.: A Practical Tutorial on Modified Condition/Decision Coverage. NASA/TM-2001-210876, May 2001, 85 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210876.pdf>
 Organization RD Program No. 728-30-10
- 763** Madden, M. M.: Examining Reuse in LASRS++-Based Projects. Presented at AIAA Modeling and Simulation Technologies Conference & Exhibit, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4119.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-4119.pdf>
 Organization RE Program No. 992-30-11
- 764** Munoz, C.; Butler, R. W.; Carreno, V. A.; and Dowek, G.: On the Formal Verification of Conflict Detection Algorithms. NASA/TM-2001-210864, May 2001, 57 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210864.pdf>
 Organization RD Program No. 727-01-22
- 765** Owre, S.; and Shankar, N.: Theory Interpretations in PVS. (NAS1-20334 SRI International.) NASA/CR-2001-211024, July 2001, 39 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211024.pdf>
 Organization RD Program No. 704-50-11
- 766** Simpson, T. W.; Mauery, T. M.; Korte, J. J.; and Mistree, F.: Kriging Models for Global Approximation in Simulation-Based Multidisciplinary Design Optimization. *AIAA Journal*, Volume 39, No. 12, December 2001, p. 2233-2241.
 Organization RB Program No. 242-33-03
- 767** Sugden, P. C.; Rau, M. A.; and Kenney, P. S.: Platform-Independence and Scheduling in a Multi-Threaded Real-Time Simulation. Presented at AIAA Modeling and Simulation Technologies Conference & Exhibit, August 6-9, 2001, Montreal, Canada. AIAA Paper No. 2001-4244.
 Organization RD Program No. 992-30-11

Category 62 Computer Systems

- 768** Moeller, K. J.; Dudley, K. L.; Quach, C. C.; and Koppen, S. V.: In-Flight Characterization of the Electromagnetic Environment Inside an Airliner. NASA/TP-2001-210831, March 2001, 149 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp210831.pdf>
 Organization RD Program No. 522-14-21

Category 63 Cybernetics

- 769 Kelkar, A. G.; Mao, Y.; and Joshi, S. M.: Synthesis of LQ-Optimal Constant-Gain Positive-Real Controllers. *Control and Intelligent Systems*, Volume 29, No. 3, 2001.
Organization RD Program No. 706-11-21
- 770 Tao, G.; Chen, S.; and Joshi, S. M.: An Adaptive Actuator Failure Compensation Controller Using Output Feedback. Presented at 2001 American Control Conference, June 25-27, 2001, Arlington, Virginia. In Proceedings, Paper No. AAC01-IEEE-1286, p. 3085-3090.
Organization RD Program No. 706-62-21
- 771 Tao, G.; Chen, S.; and Joshi, S. M.: An Adaptive Control Scheme for Systems With Unknown Actuator Failures. Presented at 2001 American Control Conference, June 25-27, 2001, Arlington, Virginia. In Proceedings, Paper No. ACC01-INV-1701, p. 1115-1120.
Organization RD Program No. 706-62-21

Category 64 Numerical Analysis

- 772 Brandt, A.; Diskin, B.; and Thomas, J. L.: Textbook Multigrid Efficiency for Computational Fluid Dynamics Simulations. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2570.
Organization RB Program No. 706-31-21
- 773 Carpenter, M. H.; Gottlieb, D. I.; and Shu, C-W.: On the Conservation and Convergence to Weak Solutions of Global Schemes. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211423, ICASE Report No. 2001-44, December 2001, 20 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-44.pdf>
Organization A Program No. 505-90-52
- 774 Diskin, B.; and Thomas, J. L.: Distributed Relaxation for Conservative Discretizations. Presented at 15th AIAA Computational Fluid Dynamics Conference, June 11-14, 2001, Anaheim, California. AIAA Paper No. 2001-2571.
Organization RB Program No. 706-31-21
- 775 Fibich, G.; Ilan, B.; and Tsynkov, S. V.: Computation of Nonlinear Backscattering Using a High-Order Numerical Method. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211036, ICASE Report No. 2001-21, July 2001, 15 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-21.pdf>
Organization A Program No. 505-90-52
- 776 Forth, S. C.; and Staroselsky, A.: A Hybrid Method Analysis for Structural Health Monitoring. Presented at ICES'01—International Conference on Computational Engineering & Sciences, August 19-25, 2001, Puerto Vallarta, Mexico. Paper No. ICF100776PR.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-ices-scf.pdf>
Organization RC Program No. 706-61-11

- 777** Hesthaven, J. S.; and Warburton, T.: High-Order/Spectral Methods on Unstructured Grids—I. Time-Domain Solution of Maxwell's Equations. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210836, ICASE Report No. 2001-6, March 2001, 45 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-6.pdf>
 Organization A Program No. 505-90-52
- 778** Hu, F. Q.; and Atkins, H. L.: Eigen-Solution Analysis of the Discontinuous Galerkin-Method With Non-Uniform Grids. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2195.
 Organization RB Program No. 522-31-21
- 779** Hu, F. Q.; and Atkins, H. L.: Eigensolution Analysis of the Discontinuous Galerkin Method With Non-Uniform Grids, Part I: One Space Dimension. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211269, ICASE Report No. 2001-40, December 2001, 35 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-40.pdf>
 Organization A Program No. 505-90-52
- 780** Huyse, L.: Free-Form Airfoil Shape Optimization Under Uncertainty Using Maximum Expected Value and Second-Order Second-Moment Strategies. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211020, ICASE Report No. 2001-18, June 2001, 29 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-18.pdf>
 Organization A Program No. 505-90-52
- 781** Huyse, L.; and Lewis, R. M.: Aerodynamic Shape Optimization of Two-Dimensional Airfoils Under Uncertain Conditions. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210648, ICASE Report No. 2001-1, January 2001, 13 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-1.pdf>
 Organization A Program No. 505-90-52
- 782** Huyse, L.; and Walters, R. W.: Random Field Solutions Including Boundary Condition Uncertainty for the Steady-State Generalized Burgers Equation. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211239, ICASE Report No. 2001-35, October 2001, 30 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-35.pdf>
 Organization A Program No. 505-90-52
- 783** Kennedy, C. A.; and Carpenter, M. H.: Additive Runge-Kutta Schemes for Convection-Diffusion-Reaction Equations. NASA/TM-2001-211038, July 2001, 54 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211038.pdf>
 Organization RB Program No. 706-31-21

- 784** Li, W.; Huyse, L.; and Padula, S. L.: Robust Airfoil Optimization to Achieve Consistent Drag Reduction Over a Mach Range. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211042, ICASE Report No. 2001-22, August 2001, 25 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-22.pdf>
 Organization A Program No. 505-90-52
- 785** Mavriplis, D. J.: An Assessment of Linear Versus Non-Linear Multigrid Methods for Unstructured Mesh Solvers. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210870, ICASE Report No. 2001-12, May 2001, 26 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-12.pdf>
 Organization A Program No. 505-90-52
- 786** Mavriplis, D. J.: Multigrid Approaches to Non-Linear Diffusion Problems on Unstructured Meshes. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210660, ICASE Report No. 2001-3, February 2001, 16 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-3.pdf>
 Organization A Program No. 505-90-52
- 787** Montero, R. S.; Llorente, I. M.; and Salas, M. D.: Semicoarsening and Implicit Smoothers for the Simulation of a Flat Plate at Yaw. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210871, ICASE Report No. 2001-13, May 2001, 22 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-13.pdf>
 Organization A Program No. 505-90-52
- 788** Raju, I. S.; and Chen, T.: Meshless Petrov-Galerkin Method Applied to Axisymmetric Problems. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1253.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1253.pdf>
 Organization RC Program No. 706-63-71
- 789** Ryaben'kii, V. S.; Tsynkov, S. V.; and Turchaninov, V. I.: Global Discrete Artificial Boundary Conditions for Time-Dependent Wave Propagation. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210872, ICASE Report No. 2001-14, May 2001, 40 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-14.pdf>
 Organization A Program No. 505-90-52
- 790** Samareh, J. A.: Survey of Shape Parameterization Techniques for High-Fidelity Multidisciplinary Shape Optimization. *AIAA Journal*, Volume 39, No. 5, May 2001, p. 877-884.
 Organization RA Program No. 725-10-11

- 791** Samareh, J. A.: A Novel Shape Parameterization Approach. *Journal of Aircraft*, Volume 38, No. 6, November–December 2001, p. 1015-1024.
Organization RA Program No. 725-10-11
- 792** Shu, C-W.: High Order Finite Difference and Finite Volume WENO Schemes and Discontinuous Galerkin Methods. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-210865, ICASE Report No. 2001-11, May 2001, 21 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-11.pdf>
Organization A Program No. 505-90-52
- 793** Spalart, P. R.: Young-Person's Guide to Detached-Eddy Simulation Grids. (NAS1-97040 Boeing Commercial Airplanes.) NASA/CR-2001-211032, July 2001, 23 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211032.pdf>
Organization RB Program No. 706-81-31
- 794** Tsynkov, S. V.: On the Definition of Surface Potentials for Finite-Difference Operators. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211059, ICASE Report No. 2001-23, September 2001, 29 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-23.pdf>
Organization A Program No. 505-90-52
- 795** Xu, K.: Regularization of the Chapman-Enskog Expansion and Its Description of Shock Structure. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211268, ICASE Report No. 2001-39, December 2001, 11 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-39.pdf>
Organization A Program No. 505-90-52
- 796** Yan, J.; and Shu, C-W.: A Local Discontinuous Galerkin Method for KdV-Type Equations. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211026, ICASE Report No. 2001-20, June 2001, 28 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-20.pdf>
Organization A Program No. 505-90-52
- 797** Zhang, Y-T.; and Shu, C-W.: High Order WENO Schemes for Hamilton-Jacobi Equations on Triangular Meshes. (NAS1-97046 Institute for Computer Applications in Science and Engineering.) NASA/CR-2001-211256, ICASE Report No. 2001-38, December 2001, 36 p.
<ftp://ftp.icase.edu/pub/techreports/2001/2001-38.pdf>
Organization A Program No. 505-90-52

Category 65 Statistics and Probability

- 798** Morris, A. T.: Shuttle Software Probabilistic Risk Assessment Using a Bayesian Network—(Shuttle CAU RTOS Independent Assessment). Presented at 1st Annual NASA Office of Safety and Mission Assurance Software Assurance Symposium (OSMA SAS '01), September 5-7, 2001, Morgantown, West Virginia.
Organization RD Program No. 704-51-41
- 799** Morris, A. T.; and Beling, P. A.: Space Shuttle RTOS Bayesian Network. Presented at 20th Digital Avionics Systems Conference, October 14-18, 2001, Daytona Beach, Florida.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-20dasc-atm.pdf>
Organization RD Program No. 704-51-41

Category 66 Systems Analysis

- 800** White, A. L.: A Study of Various Failure Modes for Transportation Systems. Presented at 19th International System Safety Conference, September 10-14, 2001, Huntsville, Alabama.
Organization RD Program No. 522-14-21
- 801** White, A. L.: Establishing Ultra-Reliability by Fault Injection Experiments. Proceedings of 2001 IEEE Aerospace Conference, March 10-17, 2001, Big Sky, Montana.
Organization RD Program No. 522-14-21
- 802** White, A. L.: A Statistics of Rare Events Methods for Transportation Systems. Proceedings of 2001 IEEE Aerospace Conference, March 10-17, 2001, Big Sky, Montana.
Organization RD Program No. 522-14-21
- 803** White, A. L.: Comments on Modified Condition/Decision Coverage for Software Testing. Proceedings of 2001 IEEE Aerospace Conference, March 10-17, 2001, Big Sky, Montana.
Organization RD Program No. 522-14-21

Physics

Category 70 Physics (General)

- 804** Winfree, W. P.; Heath, D. M.; and Cramer, K. E.: Thermal Diffusivity Imaging With a Moving Line Source. Presented at Thermosense XXIII, April 16-20, 2001, Orlando, Florida.
Organization RC Program No. 706-12-21
- 805** Winfree, W. P.; Howell, P. A.; and Parker, F. R.: Detection of Corrosion in Complex Aircraft Components With a Scanned X-Ray Source. Presented at 5th Joint NASA/FAA/DoD Conference on Aging Aircraft, September 10-13, 2001, Orlando, Florida.
Organization RC Program No. 706-61-11

- 806** Winfree, W. P.; and Zalameda, J. N.: Single Sided Thermal Diffusivity Imaging With a Shuttered Thermographic Inspection System. Presented at 28th Annual Review of Progress in Quantitative Nondestructive Evaluation (QNDE), July 29–August 3, 2001, Brunswick, Maine.
Organization RC Program No. 706-60-11

Category 71 Acoustics

- 807** Anastasi, R. F.; and Madaras, E. I.: Ultrasonic Guided Waves for Aging Wire Insulation Assessment. Presented at 28th Annual Review of Progress in Quantitative Nondestructive Evaluation (QNDE), July 29–August 3, 2001, Brunswick, Maine.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-28qn-de-rfa.pdf>
Organization RC Program No. 706-61-11
- 808** Betts, J. F.: Experimental Structural Dynamic Response of Plate Specimens Due to Sonic Loads in a Progressive Wave Tube. (NAS1-00135 Lockheed Martin Corporation.) NASA/CR-2001-211045, August 2001, 97 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211045.pdf>
Organization RB Program No. 706-63-71
- 809** Bevan, J. S.: Piezoceramic Actuator Placement for Acoustic Control of Panels. (NAG1-2141 Old Dominion University.) NASA/CR-2001-211265, December 2001, 106 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211265.pdf>
Organization RB Program No. 538-03-14
- 810** Booth, E. R., Jr.; McCluer, M.; and Tadghighi, H.: Acoustic Characteristics of an Isolated Tiltrotor Model in DNW-LLF. *Journal of the American Helicopter Society*, Volume 46, No. 1, January 2001, p. 72-80.
Organization RB Program No. 576-03-14
- 811** Boyd, D. D., Jr.; and Burley, C. L.: Analysis of Measured and Predicted Acoustics From an XV-15 Flight Test. Presented at AHS International 57th Annual Forum and Technology Display, May 9-11, 2001, Washington, DC. In Proceedings.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-57ahs-ddb.pdf>
Organization RB Program No. 727-03-14
- 812** Brooks, T. F.; and Burley, C. L.: Rotor Broadband Noise Prediction With Comparison to Model Data. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2210.
Organization RB Program No. 706-81-13
- 813** Buehrle, R. D.; Fleming, G. A.; Pappa, R. S.; and Grosveld, F. W.: Finite Element Model Development for Aircraft Fuselage Structures. *Sound and Vibration*, Volume 35, No. 1, January 2001, p. 32-38.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/jp/NASA-2001-sv-rdb.pdf>
Organization RB Program No. 706-31-51

- 814** Buehrle, R. D.; Robinson, J. H.; and Grosveld, F. W.: Vibroacoustic Model Validation for a Curved Honeycomb Composite Panel. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1587.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1587.pdf>
 Organization RB Program No. 522-81-14
- 815** Edwards, B. D.; Conner, D. A.; Decker, W. A.; Marcolini, M. A.; and Klein, P. D.: NASA/Army/Bell XV-15 Tiltrotor Low-Noise Terminal Area Operations Flight Research Program. Presented at Tiltrotor/Runway Independent Aircraft Technology and Applications Specialists' Meeting, March 20-21, 2001, Arlington, Texas.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-triata-bde.pdf>
 Organization RB Program No. 727-03-15
- 816** Farassat, F.: Acoustic Radiation From Rotating Blades—The Kirchhoff Method in Aeroacoustics. Presented at Aeroacoustics Seminar, June 4, 2001, Southampton, England.
 Organization RB Program No. 706-81-31
- 817** Farassat, F.: Acoustic Radiation From Rotating Blades—The Kirchhoff Method in Aeroacoustics. *Journal of Sound and Vibration*, Volume 239, No. 4, January 2001, p. 785-800.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/jp/NASA-2001-jsv-ff.pdf>
 Organization RB Program No. 522-81-12
- 818** Farassat, F.; Nark, D. M.; and Thomas, R. H.: The Detection of Radiated Modes From Ducted Fan Engines. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2138.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2138.pdf>
 Organization RB Program No. 781-10-12
- 819** Fields, J. M.: An Updated Catalog of 521 Social Surveys of Residents' Reactions to Environmental Noise (1943-2000). (NAS1-20103 Wyle Laboratories.) NASA/CR-2001-211257, December 2001, 155 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211257.pdf>
 Organization RB Program No. 538-03-15
- 820** Gerhold, C. H.: Determination of Fan Inlet Duct Mode Structure Using In-Duct Microphone Array Measurement. Presented at 141st Meeting of the Acoustical Society of America, June 4-8, 2001, Chicago, Illinois.
 Organization RB Program No. 706-81-12
- 821** Gerhold, C. H.; and Clark, L. R.: Database of Inlet and Exhaust Noise Shielding for Wedge-Shaped Airframe. NASA/TM-2001-210840, April 2001, 20 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210840.pdf>
 Organization RB Program No. 706-81-12

- 822** Grosveld, F. W.: Binaural Simulation Experiments in the NASA Langley Structural Acoustics Loads and Transmission Facility. (NAS1-00135 Lockheed Martin Engineering and Sciences.) NASA/CR-2001-211255, December 2001, 23 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211255.pdf>
 Organization RB Program No. 705-30-11
- 823** Grosveld, F. W.; Buehrle, R. D.; and Robinson, J. H.: Structural and Acoustic Numerical Modeling of a Curved Composite Honeycomb Panel. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. In Proceedings. AIAA Paper No. 2001-2277.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2277.pdf>
 Organization RB Program No. 522-81-14
- 824** Jones, M. G.; Watson, W. R.; Tracy, M. B.; and Parrott, T. L.: Comparison of Two Acoustic Waveguide Methods for Determining Liner Impedance. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2266.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2266.pdf>
 Organization RB Program No. 781-30-14
- 825** Khorrami, M. R.; Singer, B. A.; and Berkman, M. E.: Time-Accurate Simulations and Acoustic Analysis of Slat Free-Shear Layer. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2155.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2155.pdf>
 Organization RB Program No. 781-10-11
- 826** Kinzie, K. W.; Brown, M. C.; Schein, D. B.; and Solomon, W. D.: Measurements and Predictions for a Distributed Exhaust Nozzle. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2236.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2236.pdf>
 Organization RB Program No. 781-30-12
- 827** Kumar, A.; and Hefner, J. N.: Future Challenges and Opportunities in Aerodynamics. Presented at Aeronautical Society of India, September 7, 2001, Trivandrum, India.
 Organization RB Program No. 538-03-11
- 828** Lan, J. H.: Turbofan Duct Propagation Model. (NAS1-97040 The Boeing Company.) NASA/CR-2001-211245, December 2001, 71 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211245.pdf>
 Organization RB Program No. 706-81-21
- 829** Madaras, E. I.; and Anastasi, R. F.: Investigating the Use of Ultrasound for Evaluating Aging Wiring Insulation. Presented at 5th Joint NASA/FAA/DoD Conference on Aging Aircraft, September 10-13, 2001, Orlando, Florida.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-5caa-eim.pdf>
 Organization RC Program No. 706-61-11

- 830** Maestrello, L.: Laminarization of Turbulent Boundary Layer on Flexible and Rigid Surfaces. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2159.
 Organization RB Program No. 781-10-13
- 831** Maestrello, L.: Controlling Vibrational Chaos of a Curved Structure. *AIAA Journal*, Volume 39, No. 4, April 2001, p. 581-589.
 Organization RB Program No. 706-81-14
- 832** Mathur, G. P.; Chin, C. L.; Simpson, M. A.; and Lee, J. T.: Structural Acoustic Prediction and Interior Noise Control Technology. (NAS1-97040 The Boeing Company.)
 NASA/CR-2001-211247, November 2001, 70 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/cr/NASA-2001-cr211247.pdf>
 Organization RB Program No. 706-81-14
- 833** Palumbo, D. L.; Cabell, R. H.; Cline, J. H.; and Sullivan, B. M.: Flight Test of Active Structural Acoustic Noise Control System. *Journal of Aircraft*, Volume 38, No. 2, March–April 2001, p. 277-284.
 Organization RB Program No. 538-03-14
- 834** Powell, C. A.; and Sullivan, B. M.: Subjective Response to Propeller Airplane Interior Sounds Modified by Hypothetical Active Noise Control Systems. *Noise Control Engineering Journal*, Volume 49, No. 3, May–June 2001, p. 125-136.
 Organization RB Program No. 522-81-14
- 835** Rizzi, S. A.; and Bossaert, G.: Closed-Loop Control for Sonic Fatigue Testing Systems. *Sound & Vibration*, Volume 35, No. 11, November 2001, p. 19-23.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/jp/NASA-2001-sv-sar.pdf>
 Organization RB Program No. 781-10-13
- 836** Robinson, J. H.: The Mean Equation in Equivalent Linearization. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2278.
 Organization RB Program No. 522-63-11
- 837** Senzig, D. A.; Fleming, G. G.; and Shepherd, K. P.: Measured Engine Installation Effects of Four Civil Transport Airplanes. Presented at NOISE-CON 2001—2001 National Conference on Noise Control Engineering, October 29-31, 2001, Portland, Maine.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-noisecon-das.pdf>
 Organization RB Program No. 781-20-11
- 838** Singer, B. A.; Brentner, K. S.; Lockard, D. P.; and Lilley, G. M.: Aeroacoustic Simulations of Airframe Noise. Presented at Fundamentals of Aeroacoustics With Application to Wind Turbine Noise, July 24-26, 2001, Golden, Colorado.
 Organization RB Program No. 781-10-11

- 839** Sparrow, V. W.; and Buehrle, R. D.: Fuzzy Structures Analysis of Aircraft Panels in NASTRAN. Presented at 42nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, April 16-19, 2001, Seattle, Washington. AIAA Paper No. 2001-1320.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-1320.pdf>
 Organization RB Program No. 522-81-14
- 840** Sparrow, V. W.; and Buehrle, R. D.: Application of Fuzzy Structures Analysis to Aircraft Panels. Presented at 141st Meeting of the Acoustical Society of America, June 4-8, 2001, Chicago, Illinois.
 Organization RB Program No. 522-81-14
- 841** Sullivan, B. M.; and Powell, C. A.: Human Response to Aircraft Interior Noise: Recent Tests at NASA Langley Research Center. Presented at 4th CEAS-ASC Workshop on Aircraft Ride Comfort: Noise, Vibration and Climate, May 22-23, 2001, Goteborg, Sweden.
 Organization RB Program No. 706-81-14
- 842** Thomas, R. H.; Kinzie, K. W.; and Pao, S. P.: Computational Analysis of a Pylon-Chevron Core Nozzle Interaction. Presented at 7th AIAA/CEAS Aeroacoustics Conference, May 28-30, 2001, Maastricht, The Netherlands. AIAA Paper No. 2001-2185.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-2185.pdf>
 Organization RB Program No. 781-10-12
- 843** Turner, T. L.: Thermomechanical Response of Shape Memory Alloy Hybrid Composites. NASA/TM-2001-210656, January 2001, 239 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210656.pdf>
 Organization RB Program No. 706-32-31

Category 72 Atomic and Molecular Physics

- 844** Benner, D. C.; Devi, V. M.; Smith, M. A.; Rinsland, C. P.; Brown, L. R.; and Dulick, M.: Broadening and Shift Coefficients of $^{12}\text{C}^{16}\text{O}_2$ and $^{13}\text{C}^{16}\text{O}_2$ Laser Bands. Presented at International Symposium on Molecular Spectroscopy 56th Meeting, June 11-15, 2001, Columbus, Ohio. In Proceedings, p. 71.
 Organization RE Program No. 622-67-65
- 845** Benner, D. C.; Devi, V. M.; Smith, M. A.; Rinsland, C. P.; and Mantz, A. W.: Self-Broadening, Shifting and Line Mixing in the Fundamental Band of $^{12}\text{C}^{16}\text{O}$. Presented at International Symposium on Molecular Spectroscopy 56th Meeting, June 11-15, 2001, Columbus, Ohio. In Proceedings, p. 69.
 Organization RE Program No. 622-67-65

- 846** Devi, V. M.; Benner, D. C.; Smith, M. A.; and Rinsland, C. P.: Measurements of Air Broadened Width and Air Induced Shift Coefficients and Line Mixing in the ν_5 Band of $^{12}\text{CH}_3\text{D}$. *Journal of Quantitative Spectroscopy and Radiative Transfer*, Volume 68, No. 2, January 15, 2001, p. 135-164.
 Organization RE Program No. 622-67-65
- 847** Devi, V. M.; Benner, D. C.; Smith, M. A.; and Rinsland, C. P.: Measurements of Air-Broadened Width and Air-Induced Shift Coefficients and Line Mixing in the ν_6 Band of $^{12}\text{CH}_3\text{D}$. *Journal of Quantitative Spectroscopy and Radiative Transfer*, Volume 68, No. 1, January 1, 2001, p. 1-42.
 Organization RE Program No. 622-67-65
- 848** Exton, R. J.: Correlation of Cs/Foreign Gas Diffuse Bands With Theoretical Interaction Potentials. *Journal of Quantitative Spectroscopy and Radiative Transfer*, Volume 69, No. 6, May 7, 2001, p. 723-743.
 Organization RB Program No. 522-31-11
- 849** Exton, R. J.; Balla, R. J.; Shirinzadeh, B.; Brauckmann, G. J.; Herring, G. C.; Kelliher, W. C.; Fugitt, J.; Lazard, C. J.; and Khodataev, K. V.: On-Board Projection of a Microwave Plasma Upstream of a Mach 6 Bow Shock. *Physics of Plasmas*, Volume 8, No. 11, November 2001, p. 5013-5017.
 Organization RB Program No. 706-85-40
- 850** Mantz, A. W.; Smith, M. A.; Rinsland, C. P.; De Lucia, F. C.; Benner, D. C.; and Devi, V. M.: Temperature Dependence of Air-Broadening and Shift Coefficients in the $^{12}\text{C}^{16}\text{O}$ Fundamental Band. Presented at International Symposium on Molecular Spectroscopy 56th Meeting, June 11-15, 2001, Columbus, Ohio. In Proceedings.
 Organization RE Program No. 622-67-65
- 851** Perrin, A.; Flaud, J-M.; Keller, F.; Smith, M. A.; Rinsland, C. P.; Devi, V. M.; Benner, D. C.; Stephen, T. M.; and Goldman, A.: The $\nu_1 + \nu_3$ Bands of the $^{16}\text{O}^{17}\text{O}^{16}\text{O}$ and $^{16}\text{O}^{16}\text{O}^{17}\text{O}$ Isotopomers of Ozone. *Journal of Molecular Spectroscopy*, Volume 207, No. 1, May 2001, p. 54-59.
 Organization RE Program No. 622-67-65
- 852** Smith, M. A.: Characterization of Line Broadening and Shift Parameters of Ozone for Spectroscopic Databases. Presented at International Symposium on Molecular Spectroscopy 56th Meeting, June 11-15, 2001, Columbus, Ohio. In Proceedings, p. 67.
 Organization RE Program No. 622-67-65
- 853** Smith, M. A.; Devi, V. M.; Benner, D. C.; and Rinsland, C. P.: Absolute Intensities of $^{16}\text{O}_3$ Lines in the 9-11 μm Regions. *Journal of Geophysical Research*, Volume 106, No. D9, May 16, 2001, p. 9909-9921.
 Organization RE Program No. 622-67-65

- 854** Smith, M. A.; Rinsland, C. P.; Mantz, A. W.; Benner, D. C.; and Devi, V. M.: Self- and H₂-Broadening and Shift Coefficients in the 2-0 Band of ¹²C¹⁶O. Presented at International Symposium on Molecular Spectroscopy 56th Meeting, June 11-15, 2001, Columbus, Ohio. In Proceedings, p. 70.

Organization RE

Program No. 622-67-65

Category 74 Optics

- 855** DeYoung, R. J.: Narrow Band Fiber Bragg Grating Water Vapor DIAL Receiver. Presented at 2001 Fourier Transform Spectroscopy/Optical Remote Sensing of the Atmosphere Topical Meeting and Tabletop Exhibit, February 5-8, 2001, Coeur d'Alene, Idaho.

Organization RE

Program No. 274-00-00

- 856** DeYoung, R. J.: A Narrow Band Fiber Bragg Grating Filter for Lidar Receivers. Presented at CLEO 2001: Conference on Lasers and Electro-Optics, May 6-11, 2001, Baltimore, Maryland.

Organization RE

Program No. 274-00-00

- 857** Hart, R. C.; Balla, R. J.; and Herring, G. C.: Simultaneous Velocimetry and Thermometry of Air by Use of Nonresonant Heterodyned Laser-Induced Thermal Acoustics. *Applied Optics*, Volume 40, No. 6, February 20, 2001, p. 965-968.

Organization RB

Program No. 522-31-11

- 858** Namkung, M.; Wincheski, R. A.; and Paik, S. M.: Thermodynamic Behaviors of Nano-Sized Au Clusters on the (001) Surface. Presented at 2001 International Conference on Computational Nanoscience, March 19-21, 2001, Hilton Head, South Carolina.

Organization RC

Program No. 706-63-51

- 859** Petros, M.; Yu, J.; Singh, U. N.; Barnes, J. C.; Barnes, N. P.; and Walsh, B. M.: 300-mJ Diode Pumped 1.9 μ m Tm:YLF Laser. Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.

Organization RF

Program No. 757-01-00

- 860** Stenholm, I.; and DeYoung, R. J.: Ultra Narrowband Optical Filters for Water Vapor Differential Absorption Lidar (DIAL) Atmospheric Measurements. NASA/TM-2001-211261, December 2001, 34 p.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211261.pdf>

Organization RE

Program No. 622-63-13

- 861** Entry deleted.

- 862** Wood, K. H.; Brown, T. L.; Wu, M-C.; and Gause, C. B.: Fiber Optic Sensors for Cure/Health Monitoring of Composites Materials. Proceedings of 3rd International Workshop on Structural Health Monitoring, September 12-14, 2001, Stanford, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-3iwshm-khw.pdf>
Organization RC Program No. 728-30-10

Category 76 Solid-State Physics

- 863** Koch, G. J.; Cook, A. L.; Fitzgerald, C. M.; and Dharamsi, A. N.: Frequency Stabilization of a Diode Laser to Absorption Lines of Water Vapor in the 944 nm Wavelength Region. *Optical Engineering*, Volume 40, No. 4, April 2001, p. 525-528.
Organization RF Program No. 522-24-11
- 864** Walsh, B. M.; Barnes, N. P.; Hutcheson, R. L.; and Equall, R. W.: Compositionally Tuned 0.94 Micrometer Lasers; A Comparative Laser Material Study and Demonstration of 100 mJ Q-Switched Lasing at 0.946 and 0.944 Micrometers. *IEEE Journal of Quantum Electronics*, Volume 37, No. 9, September 2001, p. 1203-1209.
Organization RF Program No. 258-70-21
- 865** Walsh, B. M.; Barnes, N. P.; Hutcheson, R. L.; and Equall, R. W.: A 100 mJ Q-switched Nd:YAG_xYSAG_{x-1} Laser at 944.1 nm. Presented at Advanced Solid-State Lasers 16th Topical Meeting and Tabletop Exhibit, January 28-31, 2001, Seattle, Washington.
Organization RF Program No. 258-70-21

Category 77 Thermodynamics and Statistical Physics

- 866** Cramer, K. E.; Jacobstein, R.; and Reilly, T.: Boiler Tube Corrosion Characterization With a Scanning Thermal Line. Presented at Thermosense XXIII, April 16-20, 2001, Orlando, Florida.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-thermo-kec.pdf>
Organization RC Program No. 522-18-11
- 867** Cramer, K. E.; and Winfree, W. P.: Imaging of Defect Depth Using a Scanned Thermal Line. Presented at Thermosense XXIII, April 16-20, 2001, Orlando, Florida.
Organization RC Program No. 522-18-11

Social Sciences

Category 82 Documentation and Information Science

- 868** Anderson, C. J.; Glassman, M.; McAfee, R. B.; and Pinelli, T. E.: An Investigation of Factors Affecting How Engineers and Scientists Seek Information. *Journal of Engineering Technology Management*, Volume 18, No. 2, 2001, p. 131-155.
Organization SH Program No. 721-99-00

- 869** Barkstrom, B. R.: Predicting User Access and Data Distribution Rates with Markov Models and Innovation-Diffusion. Presented at JCDL '01: 1st ACM/IEEE-CS Joint Conference on Digital Libraries, June 24-28, 2001, Roanoke, Virginia.
 Organization RE Program No. 229-01-02
- 870** Geisler, G.; Marchionini, G.; Nelson, M. L.; Spinks, R.; and Yang, M.: Interface Concepts for the Open Video Project. Presented at ASIST 2001 Annual Meeting, November 2-8, 2001, Washington, DC.
 Organization RF Program No. 992-16-05
- 871** Liu, X-M.; Maly, K.; Zubair, M.; and Nelson, M. L.: Arc - An OAI Service Provider for Digital Library Federation. *D-Lib Magazine*, Volume 7, No. 4, April 2001, p. 19.
 Organization RF Program No. 992-16-05
- 872** Liu, X-M.; Maly, K.; Zubair, M.; and Nelson, M. L.: Arc—An OAI Service Provider for Cross—Archive Searching. Presented at JCDL '01: 1st ACM/IEEE-CS Joint Conference on Digital Libraries, June 24-28, 2001, Roanoke, Virginia.
 Organization RF Program No. 992-16-05
- 873** Machie, H. B.; and Stewart, S. H. (*Compilers*): NASA Langley Scientific and Technical Information Output—2000. NASA/TM-2001-210657, February 2001, 157 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm210657.pdf>
 Organization SL Program No. 282-30-10
- 874** Nelson, M. L.: Buckets: Smart Objects for Digital Libraries. NASA/TM-2001-211049, August 2001, 177 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211049.pdf>
 Organization RF Program No. 992-16-05
- 875** Nelson, M. L.; Argue, B.; Efron, M.; Denn, S.; and Pattuelli, M. C.: A Survey of Complex Object Technologies for Digital Libraries. NASA/TM-2001-211426, December 2001, 77 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211426.pdf>
 Organization RF Program No. 992-16-05
- 876** Nelson, M. L.; and Maly, K.: Smart Objects and Open Archives. *D-Lib Magazine*, Volume 7, No. 2, February 2001, p. 24.
 Organization RF Program No. 992-16-08
- 877** Nelson, M. L.; and Maly, K.: Buckets: Smart Objects for Digital Libraries. *Communications of the ACM*, Volume 44, No. 5, May 2001, p. 60-62.
 Organization RF Program No. 992-16-05
- 878** Nelson, M. L.; Marchionini, G.; Geisler, G.; and Yang, M.: A Bucket Architecture for the Open Video Project. Presented at JCDL '01: 1st ACM/IEEE-CS Joint Conference on Digital Libraries, June 24-28, 2001, Roanoke, Virginia.
 Organization RF Program No. 992-16-05

- 879** Rocker, J.: Technical Information. *Aerospace America*, Volume 39, No. 12, December 2001, p. 41.

Organization SL

Program No. 771-10-10

- 880** Rocker, J.; and Roncaglia, G. J.: Federal R&D Reductions, Market Share, and Aerospace Information Usage. Presented at 39th AIAA Aerospace Sciences Meeting and Exhibit, January 8-11, 2001, Reno, Nevada. AIAA Paper No. 2001-0134.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/aiaa/NASA-aiaa-2001-0134.pdf>

Organization SL

Program No. 282-30-10

Space Sciences

Category 88 Space Sciences (General)

- 881** Moore, A. S.; Chu, W. P.; Szatkowski, L. S.; Ferrare, K. C.; Bradley, O. H., Jr.; Blythe, M. P.; Quinn, J. K.; Cisewski, M.; Riley, M. E.; Rawls, J. R.; and Ray, A. J.: Overview of the Multi Facets of the Stratospheric Aerosol and Gas Experiment III (SAGE III). Presented at SPIE's 46th Annual Meeting—The International Symposium on Optical Science and Technology, July 29–August 3, 2001, San Diego, California.

Organization OK

Program No. 227-92-43

Category 89 Astronomy

- 882** Doggett, W. R.; Messner, W. C.; and Juang, J.-N.: Global Minimization of the Robot Base Reaction Force During 3D Maneuvers. *IEEE Transactions on Robotics and Automation*, Volume 16, No. 6, December 2000, p. 700-711.

Organization RD

Program No. 519-31-61

Category 91 Lunar and Planetary Exploration

- 883** Gohn, G. S.; Bruce, T. S.; Catchings, R. D.; Emry, S. R.; Johnson, G. H.; Levine, J. S.; McFarland, E. R.; Poag, C. W.; and Powars, D. S.: Integrated Geological, Hydrologic, and Geophysical Investigations of the Chesapeake Bay Impact Structure, Virginia, USA: A Multi-Agency Program. Presented at 32nd Lunar and Planetary Science Conference, March 12-16, 2001, Houston, Texas.

Organization RE

Program No. 274-00-00

- 884** Levine, J. S.: Chemical Thermodynamic Disequilibrium and the Composition of the Atmosphere of Mars. Presented at Mars Atmospheric Chemistry and Astrobiology (MACA) Workshop, December 17-19, 2001, Pasadena, California.

Organization RE

Program No. 896-30-00

- 885** Levine, J. S.: The Mars Atmospheric-Borne Regional Surveyor (MARS): A Powered Airplane on Mars. Presented at Mars Scouts Concept Workshop, May 21-25, 2001, Pasadena, California.

Organization RE

Program No. 896-30-00

- 886** Levine, J. S.; Taylor, G. R.; Saunders, M. P.; McKay, C. P.; and Betts, B. H.: Science From a Mars Airplane. Presented at 2nd NetLander Mars Scientific Symposium, April 2-4, 2001, Nantes, France. In Proceedings, Paper No. 64.

Organization RE

Program No. 274-00-00

- 887** Mitcheltree, R. A.; Hughes, S. J.; Dillman, R. A.; and Teter, J. E., Jr.: An Earth Entry Vehicle for Returning Samples From Mars. Presented at 2nd International Symposium on Atmospheric Reentry Vehicles and Systems, March 26-29, 2001, Arcachon, France. AAAP Paper ARVS-102.

Organization OC

Program No. 896-30-00

Category 93 Space Radiation

- 888** Alexander, M. A.; Hill, D. J.; Connell, J. W.; and Watson, K. A.: A Study of the Vacuum γ -Radiolysis of Two Aromatic Polyimide Fluoropolymers Containing Phenylphosphine Oxide. *High Performance Polymers*, Volume 13, No. 3, September 2001, p. 67-78.

Organization RC

Program No. 755-06-00

- 889** Anderson, B. M.; Nealy, J. E.; Qualls, G. D.; Staritz, P. J.; Wilson, J. W.; Kim, M. Y.; Cucinotta, F. A.; Atwell, W.; De Angelis, G.; Ware, J.; and Persans, A. E.: Shuttle Spacesuit (Radiation) Model Development. Presented at 31st International Conference on Environmental Systems, July 9-12, 2001, Orlando, Florida. Paper No. 01ICES-2363.

<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-31ices-bma.pdf>

Organization RC

Program No. 705-30-11

- 890** Anderson, B. M.; Qualls, G. D.; Nealy, J. E.; and Wilson, J. W.: Shielding Model of the Shuttle Spacesuit. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.

Organization RC

Program No. 101-21-23

- 891** Barber, R.; Cucinotta, F. A.; Nikjoo, H.; Qualls, G. D.; and Wilson, J. W.: Modeling of the Shuttle and Space Station Tissue-Equivalent Proportional Counters Using Computer Automated Design Techniques. Presented at 31st International Conference on Environmental Systems, July 9-12, 2001, Orlando, Florida.

Organization RA

Program No. 632-84-01

- 892** Cloudsley, M. S.; Wilson, J. W.; Badavi, F. F.; Heinbockel, J. H.; Singleterry, R. C., Jr.; Tripathi, R. K.; and Shinn, J. L.: Sources of Neutrons in Low Earth Orbit. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC. Abstract in Proceedings.

Organization RC

Program No. 632-84-01

- 893** Cloudsley, M. S.; Wilson, J. W.; Shinn, J. L.; Badavi, F. F.; Heinbockel, J. H.; and Atwell, W.: Neutron Environment Calculations for Low Earth Orbit. Presented at 31st International Conference on Environmental Systems, July 9-12, 2001, Orlando, Florida. Paper No. 01ICES-2327.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-31ices-msc.pdf>
 Organization RC Program No. 705-30-11
- 894** Cucinotta, F. A.; Wilson, J. W.; Williams, J. R.; and Dicello, J. F.: Analysis of Mir-18 Results for Physical and Biological Dosimetry: Radiation Shielding Effectiveness in LEO. *Radiation Measurements*, Volume 32, No. 3, 2000, p. 181-191.
 Organization RC Program No. 111-15-01
- 895** De Angelis, G.; Wilson, J. W.; Cloudsley, M. S.; Nealy, J. E.; Humes, D. H.; and Clem, J. M.: Lunar Lava Tube Radiation Safety Analysis. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
 Organization RC Program No. 101-21-23
- 896** De Angelis, G.; Wilson, J. W.; Tripathi, R. K.; Cloudsley, M. S.; Kim, M. Y.; and Nealy, J. E.: Lunar Surface Habitats Radiation Safety Analysis. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
 Organization RC Program No. 101-21-23
- 897** Heinbockel, J. H.; Wilson, J. W.; Singleterry, R. C., Jr.; Cloudsley, M. S.; and Feldman, M.: A Fast Nonperturbative Method for Neutron Transport. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC. Abstract in Proceedings.
 Organization RC Program No. 101-21-23
- 898** Hugger, C. P.; Qualls, G. D.; and Wilson, J. W.: Re-Configurable ISS Shielding Model. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
 Organization RC Program No. 101-21-23
- 899** Jahshan, S. N.; and Singleterry, R. C., Jr.: The Effect of Stochastic Perturbation of Fuel Distribution on the Criticality of a One Speed Reactor and the Development of Multi-Material Multinomial Line Statistics. *Annals of Nuclear Energy*, Volume 28, No. 17, November 2001, p. 1697-1716.
 Organization RC Program No. 101-21-23
- 900** Kim, M. Y.; Tweed, J.; Wilson, J. W.; Thibeault, S. A.; Zeitlin, C. J.; Cucinotta, F. A.; Ware, J.; and Persans, A. E.: Radiation Transmission Properties of Spacesuit Fabrics. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC. Abstract in Proceedings.
 Organization RC Program No. 101-21-23

- 901** Nealy, J. E.; Anderson, B. M.; Cucinotta, F. A.; and Wilson, J. W.: Rapid Analysis Procedure for Electron Transport. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
Organization RC Program No. 101-21-23
- 902** Qualls, G. D.; Wilson, J. W.; Sandridge, C. A.; Cucinotta, F. A.; Nealy, J. E.; Heinbockel, J. H.; Hugger, C. P.; VerHage, J. E.; Anderson, B.; Atwell, W.; Zapp, N.; and Barber, R.: International Space Station Radiation Shielding Model Development. Presented at 31st International Conference on Environmental Systems, July 9-12, 2001, Orlando, Florida. Paper No. 01ICES-2370.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-31ices-gdq.pdf>
Organization RA Program No. 705-30-11
- 903** Saganti, P. B.; Cucinotta, F. A.; Wilson, J. W.; and Simonsen, L. C.: Visualization of the Martian Radiation Environment: Particle Flux Distribution in the Human Body. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
Organization RC Program No. 101-21-23
- 904** Shinn, J. L.: An Improved TEPC Response Model. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
Organization RC Program No. 732-50-00
- 905** Shinn, J. L.; Wilson, J. W.; and Xapsos, M. A.: An Improved Analytic Model for Microdosimeter Response. NASA/TP-2001-211040, September 2001, 13 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp211040.pdf>
Organization RC Program No. 732-50-00
- 906** Singleterry, R. C., Jr.; Fan, K. Y.; Qualls, G. D.; Wilson, J. W.; Koontz, S.; Cucinotta, F. A.; Atwell, W.; Badavi, F. F.; Riggins, J. O.; and Kayali, S.: Collaborative Engineering Methods for Radiation Shield Design. Presented at 31st International Conference on Environmental Systems, July 9-12, 2001, Orlando, Florida.
Organization RC Program No. 632-84-01
- 907** Singleterry, R. C., Jr.; Qualls, G. D.; Wilson, J. W.; Cheatwood, F. M.; Riggins, J. O.; Fan, K. Y.; Johns, B.; Cloudsley, M. S.; Kim, M. Y.; Koontz, S.; Atwell, W.; Kayali, S.; and Badavi, F. F.: Collaborative Engineering Methods for Radiation Shield Design. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
Organization RC Program No. 632-84-01
- 908** Singleterry, R. C., Jr.; Wilson, J. W.; Shinn, J. L.; Tripathi, R. K.; and Thibeault, S. A.: Creation and Utilization of a World Wide Web Based Space Radiation Effects Code: SIREST. *Journal Physica Medica*, Volume 17, No. Sup. 1, 2001, p. 90-93.
Organization RC Program No. 101-21-23

- 909 Tripathi, R. K.; Wilson, J. W.; and Cucinotta, F. A.: Nucleus-Nucleus Total Cross Sections in Multiple Scattering Approach. Presented at Annual American Physical Society April 2001 Meeting, April 28–May 1, 2001, Washington, DC.
Organization RC Program No. 101-21-23
- 910 Tripathi, R. K.; Wilson, J. W.; and Cucinotta, F. A.: Importance of Nuclear Physics to NASA's Space Missions. Presented at INPC 2001—International Nuclear Physics Conference, July 30–August 3, 2001, Berkeley, California.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-inpc-rkt.pdf>
Organization RC Program No. 775-06-00
- 911 Tripathi, R. K.; Wilson, J. W.; and Cucinotta, F. A.: Proton-Nucleus Elastic Cross Sections Using Two-Body In-Medium Scattering Amplitudes. NASA/TP-2001-211043, August 2001, 17 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tp/NASA-2001-tp211043.pdf>
Organization RC Program No. 101-21-23
- 912 Tripathi, R. K.; Wilson, J. W.; and Cucinotta, F. A.: Medium Modified Two-Body Scattering Amplitude From Proton-Nucleus Total Cross Sections. *Nuclear Instruments and Methods in Physics Research B (Beam Interactions With Materials and Atoms)*, Volume 173, No. 4, January 2001, p. 391-396.
Organization RC Program No. 101-21-23
- 913 Tripathi, R. K.; Wilson, J. W.; Cucinotta, F. A.; Nealy, J. E.; Cloudsley, M. S.; and Kim, M. Y.: Mission Shielding Materials Optimization Procedures. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
Organization RC Program No. 755-06-00
- 914 Tripathi, R. K.; Wilson, J. W.; Cucinotta, F. A.; Nealy, J. E.; Cloudsley, M. S.; and Kim, M. Y.: Deep Space Mission Radiation Shielding Optimization. Presented at 31st International Conference on Environmental Systems, July 9-12, 2001, Orlando, Florida. Paper No. 01ICES-2326.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-31ices-rkt.pdf>
Organization RC Program No. 755-06-00
- 915 Tweed, J.; Wilson, J. W.; Tripathi, R. K.; and Kim, M. Y.: A Green's Function Technique for Ion Beam Transport. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC. Abstract in Proceedings.
Organization RC Program No. 101-21-23
- 916 VerHage, J. E.; Qualls, G. D.; Sandridge, C. A.; Rizzi, S. A.; Wilson, J. W.; Hugger, C. P.; and Anderson, B. M.: Audio/Video 3D Immersion in Multifunctional Shield Design Methods in the Intelligence Synthesis Environment. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC.
Organization RC Program No. 755-30-11

- 917 Wilson, J. W.; Cucinotta, F. A.; Kim, M. Y.; and Schimmerling, W.: Optimized Shielding for Space Radiation Protection. *Physica Medica*, Volume 17, No. Sup.1, 2001, p. 67-71.
Organization RC Program No. 406-10-00
- 918 Wilson, J. W.; Cucinotta, F. A.; Miller, J.; Shinn, J. L.; Thibeault, S. A.; Singleterry, R. C., Jr.; Simonsen, L. C.; and Kim, M. Y.: Approach and Issues Relating to Shield Material Design to Protect Astronauts From Space Radiation. *Materials and Design*, Volume 22, No. 7, October 2001, p. 541-554.
Organization RC Program No. 101-15-01
- 919 Wilson, J. W.; Kim, M. Y.; De Angelis, G.; Cucinotta, F. A.; and Yoshizawa, N.: Implementation of Gy-Eq for Deterministic Effects Limitation in Shield Design. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC. Abstract in Proceedings.
Organization RC Program No. 101-21-23
- 920 Wilson, J. W.; Korte, J. J.; Heinbockel, J. H.; Cloudsley, M. S.; and Badavi, F. F.: Multifunctional/Multidisciplinary Optimization Procedures in Spacecraft Design: Preparations for RLV 2nd Generation. Presented at 12th Annual NASA Space Radiation Health Investigators' Workshop, June 27-30, 2001, Washington, DC. Abstract in Proceedings.
Organization RC Program No. 101-21-23
- 921 Wilson, J. W.; Tweed, J.; Zeitlin, C. J.; Kim, M. Y.; Anderson, B. M.; Cucinotta, F. A.; Ware, J.; and Persans, A. E.: Shuttle Spacesuit: Fabric/LCVG Model Validation. Presented at 31st International Conference on Environmental Systems, July 9-12, 2001, Orlando, Florida. Paper No. 01ICES-2372.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/mtg/NASA-2001-31ices-jww.pdf>
Organization RC Program No. 632-84-01

General

Category 99 General

- 922 Yeager, W. T., Jr.; and Kvaternik, R. G.: A Historical Overview of Aeroelasticity Branch and Transonic Dynamics Tunnel Contributions to Rotorcraft Technology and Development. NASA/TM-2001-211054, ARL-TR-2564, August 2001, 115 p.
<http://techreports.larc.nasa.gov/ltrs/PDF/2001/tm/NASA-2001-tm211054.pdf>
Organization RC Program No. 712-20-21

Author Index

A

Abbott, T. S.: 82, 83
 Abdel-Magid, B. M.: 254
 Abedin, M. N.: 478
 Abeyounis, W. K.: 61
 Adams, C. A.: 84
 Adams, D. O.: 292
 Adams, R. J.: 84, 112, 113
 Adams, W. M., Jr.: 217
 Adcock, E. E.: 464
 Adcock, J. B.: 156
 Ade, P. A.: 632
 Al-Saadi, J. A.: 601
 Albertson, C. W.: 197
 Albyn, K.: 378
 Alderfer, D. W.: 466
 Alexander, G. D.: 571
 Alexander, M. A.: 322, 888
 Alexandrov, N. M.: 238
 Allen, J. M.: 5
 Allen, M.: 618
 Allison, D. O.: 66
 Allison, S. G.: 505
 Alter, S. J.: 26, 403, 427
 Ambur, D. R.: 293, 323, 432, 497, 513, 517, 539, 540
 Amer, T. R.: 231, 465, 466
 Amir, A. R.: 243
 Anastasi, R. F.: 255, 384, 807, 829
 Anderson, B.: 902
 Anderson, B. E.: 573, 574, 635
 Anderson, B. M.: 889, 890, 901, 916, 921
 Anderson, C. J.: 868
 Anderson, J.: 602, 627, 629
 Anderson, R. A.: 375
 Anderson, W. K.: 44, 452
 Andrews, E. H.: 200, 201, 203
 Annett, M. S.: 560
 Anon.: 736, 737
 Arbocz, J.: 514, 515
 Arduini, R. F.: 644, 647, 683, 710
 Argue, B.: 875
 Arimoto, R.: 575
 Asano, S.: 653, 702
 Assadi, M.: 552

Atkins, H. L.: 738, 778, 779
 Atwell, W.: 889, 893, 902, 906, 907
 Auslender, A. H.: 401
 Avery, M. A.: 582, 634, 635, 699
 Axenson, T. J.: 498
 Ayers, J. K.: 636, 637, 682, 694, 695

B

Badavi, F. F.: 892, 893, 906, 907, 920
 Baker, D. J.: 256
 Bakos, R. J.: 198, 222
 Balakrishna, S.: 156, 157
 Balakumar, P.: 407
 Balas, G. J.: 455
 Balien, R. A.: 385
 Ball, J. D.: 725
 Balla, R. J.: 424, 425, 477, 849, 857
 Balok, A. E.: 663
 Bandy, A. R.: 577
 Bangert, L. S.: 63
 Banks, B.: 378
 Banks, W. I.: 346
 Banks, W. I., III: 347
 Barber, R.: 891, 902
 Bare, E. A.: 464
 Bark, L. W.: 122, 164, 165
 Barker, L. K.: 94
 Barkstrom, B. R.: 638, 639, 869
 Barmore, B. E.: 112, 113
 Barnes, J. C.: 499, 503, 511, 600, 859
 Barnes, N. P.: 498, 500, 501, 502, 511, 859, 864, 865
 Barrick, J. D.: 582, 658, 659
 Barrows, D. A.: 484
 Barry, J. S.: 111
 Bartels, R. E.: 123, 192
 Bartlett, J. E.: 395, 400, 464
 Bartram, S. M.: 476, 480
 Barut, A.: 516
 Batten, C. F.: 505
 Bauer, S. X.: 6, 19, 27, 73, 79, 80
 Baum, B. A.: 640, 668, 718, 719, 720
 Beck, S. M.: 243
 Beebe, A.: 630
 Beggs, J. H.: 386, 387, 388, 389

Beling, P. A.: 799
 Bellinger, D.: 124
 Belvin, H. L.: 326, 327, 328, 343, 344, 346
 Bendura, R. J.: 584
 Benner, D. C.: 844, 845, 846, 847, 850, 851, 853, 854
 Bennett, R. L.: 161, 172, 178
 Bent, A.: 170, 171
 Beran, P. S.: 125, 186
 Berardino, F.: 189
 Berkman, M. E.: 825
 Bernd, J.: 441, 460
 Berrier, B. L.: 61
 Berry, R. F., Jr.: 304
 Berry, S. A.: 240, 241, 401, 402, 403, 427, 428, 429
 Bess, T. D.: 641
 Betts, B. H.: 886
 Betts, J. F.: 808
 Bevan, J. S.: 809
 Bevilacqua, R. M.: 658
 Bhatt, P. P.: 623
 Biedron, R. T.: 66, 67, 199
 Bijl, H.: 7
 Billings, M. D.: 126, 135
 Bird, R. K.: 295, 296
 Bishop, A.: 431
 Bittner, R. D.: 15
 Blake, D. R.: 635, 699
 Blanchard, R. C.: 240, 241
 Blatherwick, R. D.: 613
 Blythe, M. P.: 881
 Bobbitt, C. W.: 127, 156
 Boitnott, R. L.: 128, 136
 Boland, E. F.: 417
 Bond, D. C.: 220
 Bonhaus, D. L.: 19
 Booth, E. R., Jr.: 810
 Borg, S. E.: 467
 Bose, D. M.: 62
 Bossaert, G.: 835
 Bounajem, E.: 8
 Bowlin, G. L.: 367
 Boyd, D. D., Jr.: 811
 Bozung, T. J.: 240, 241
 Brackett, V. G.: 571, 599, 658, 659
 Bradley, O. H., Jr.: 881
 Brandon, J. M.: 9, 50
 Brandt, A.: 72, 772
 Brasseur, L. H.: 571, 599, 657, 659
 Brauckmann, G. J.: 49, 849
 Brenner, J. R.: 383
 Brentner, K. S.: 838
 Breuer, K. S.: 435
 Brewster, P. F.: 490
 Briley, W. R.: 388, 389
 Brinker, D.: 378
 Britt, V. O.: 526
 Brock, C. A.: 573
 Brooks, T. F.: 812
 Browell, E. V.: 569, 570, 571, 583, 599, 600, 609, 611, 642, 658, 659, 676
 Brown, L. R.: 844
 Brown, M. C.: 826
 Brown, P. W.: 9, 182
 Brown, R.: 161, 172, 173, 178
 Brown, T. L.: 862
 Bruce, T. S.: 883
 Brune, B.: 582
 Bryant, R. G.: 324, 331
 Buch, L. C.: 475
 Buck, G. M.: 325, 421
 Buehrle, R. D.: 813, 814, 823, 839, 840
 Buhr, M.: 575
 Bui, T. V.: 583
 Bull, K.: 245
 Bundick, W. T.: 209, 210
 Buning, P. G.: 8, 10, 66
 Burdette, D. W.: 106, 111
 Burgess, J. W.: 326, 328
 Burgess, M. A.: 117, 196
 Burkett, C. G., Jr.: 231, 466
 Burley, C. L.: 811, 812
 Burner, A. W.: 21, 22, 468, 469, 484
 Burnham, J. K.: 129
 Burton, S. P.: 596, 597, 621
 Bush, H. G.: 531, 532, 533
 Bush, K. A.: 641
 Bush, R. H.: 68
 Bushnell, D. M.: 404
 Butler, C. F.: 571, 599, 609
 Butler, D. H.: 157
 Butler, R. W.: 756, 764

Butterfield, A. J.: 130
Buttrill, C. S.: 217

C

Cabell, R. H.: 390, 833
Cageao, R. P.: 618
Calleja, J. F.: 401
Callis, L. B., Jr.: 603, 604, 605, 606, 607, 608
Calvert, J.: 576
Camanho, P. P.: 517, 518, 519, 520
Campbell, J.: 110
Cano, R. J.: 293, 326, 327, 328, 329, 330, 338, 339, 340, 347, 563
Cantrell, C.: 576
Cantrell, J. H., Jr.: 297, 298
Caplin, J.: 131
Capone, F. J.: 11
Capron, W. R.: 111
Carlson, J. R.: 405
Carman, G. L.: 247
Carmine, M. T.: 224, 231
Carpenter, M. H.: 7, 773, 783
Carrasco, J.: 664
Carreno, V. A.: 756, 764
Catchings, R. D.: 883
Cate, K. H.: 470
Cederwall, R. T.: 713, 714
Cesnik, C. E.: 4, 186
Cess, R. D.: 643
Chakrapani, V.: 644, 650, 652, 683, 708, 710
Chamberlain, J. P.: 85, 97
Chambers, L. H.: 645
Chang, A. C.: 350
Chang, C-L.: 407
Chapman, J. J.: 471, 472
Charlock, T. P.: 677, 707
Chawan, A. D.: 282, 283
Cheatwood, F. M.: 233, 406, 430, 907
Chen, D.: 573, 574
Chen, G.: 575, 577, 619
Chen, P. C.: 192
Chen, S.: 503, 504, 770, 771
Chen, T-K.: 537
Chen, T.: 788
Chen, Y.: 646, 688, 690, 710
Chepfer, H.: 647, 686
Chiacchio, M.: 709

Childers, B. A.: 505
Chilenski, J. J.: 762
Chin, C. L.: 832
Chiou, E-W.: 628
Chiou, L. S.: 591, 627
Cho, J. Y.: 609
Choi, S. H.: 331
Choudhari, M. M.: 30, 65, 407, 447, 462
Chrenka, J.: 98
Chu, W. P.: 572, 628, 648, 881
Chung, V. I.: 757
Ciardo, G.: 745
Cisewski, M.: 572, 881
Clark, L. R.: 821
Clark, N.: 391
Clarkson, W. A.: 501, 502
Clayton, M. B.: 571, 599, 658, 659
Clem, J. M.: 895
Cline, J. H.: 833
Clothiaux, E.: 670
Cloudsley, M. S.: 892, 893, 895, 896, 897, 907, 913, 914, 920
Cockrell, C. E., Jr.: 15
Cofer, W. R., III: 573, 574
Cole, S. R.: 132
Comstock, J. R., Jr.: 86, 106
Connell, J. W.: 322, 332, 333, 335, 364, 365, 366, 369, 371, 379, 380, 888
Conner, D. A.: 491, 815
Connor, B. J.: 613
Connors, V. S.: 573, 574
Conway, S. R.: 99
Cook, A. L.: 863
Cook, W. B.: 588
Cooper, E. G.: 758
Corso, L. M.: 173
Costen, R. C.: 334
Cox, D. E.: 248
Cox, S. J.: 709
Craig, D. A.: 244
Cramer, K. E.: 804, 866, 867
Crawford, J. H.: 575, 576, 577, 578, 582, 619, 634, 699
Criss, J. M.: 335, 371
Crommelynck, D.: 649
Crooks, R.: 354

Cucinotta, F. A.: 889, 891, 894, 900, 901,
902, 903, 906, 909, 910, 911, 912, 913,
914, 917, 918, 919, 921
Culliton, W. G.: 464
Curry, J. A.: 678

D

DalBello, T.: 74
Danehy, P. M.: 410, 411, 431, 440, 473, 474
Daniels, T. S.: 585
Darden, C. M.: 12
Daryabeigi, K.: 408, 409, 459
Daugherty, R. H.: 385
Davidson, J. B., Jr.: 209, 210
Davila, C. G.: 432, 497, 517, 518, 519, 520,
537, 540
Davis, D. D.: 575, 577, 582, 584, 619
Davis, J. E.: 632
Davis, P. P.: 223, 252
Dawson, D.: 240, 241
De Angelis, G.: 889, 895, 896, 919
De Geest, F.: 245
De Lucia, F. C.: 850
De Moura, M. F.: 519, 520
De Young, R. J.: 475
DeBeus, R. T.: 725
DeCaria, A. J.: 699
DeLoach, R.: 169, 193, 230
DeMarco, K.: 282
DeVries, H.: 729
DeYoung, R. J.: 507, 570, 571, 599, 855,
856, 860
Deaver, L. E.: 610, 623, 624, 625
Decker, W. A.: 815
Deere, K. A.: 11
Demoulin, P.: 627, 629
Denhardt, G. A.: 385
Denn, S.: 875
Deo, R. B.: 257
Desai, P. N.: 233, 234
Deshpande, M. D.: 392, 393
Devi, V. M.: 844, 845, 846, 847, 850, 851,
853, 854
Dewitte, S.: 649
Dexter, H. B.: 293
Dharamsi, A. N.: 863
Di Nocero, F.: 733

DiCarlo, D. J.: 118
DiFulvio, M.: 81
Dicello, J. F.: 894
Dicus, D. L.: 265, 295
Dilley, A. D.: 10, 13, 401, 416
Dillman, R. A.: 887
Dingemans, T. J.: 336, 434
Diskin, B.: 72, 772, 774
Dobyns, A.: 280
Doelling, D. R.: 644, 650, 651, 652, 653,
673, 682, 683, 684, 685, 694, 695, 696,
697, 702, 703, 708, 710, 721
Doggett, W. R.: 882
Domack, M. S.: 317
Dong, X.: 654, 655, 689, 695, 710
Donohue, G. L.: 87
Douglass, A. R.: 611
Dowek, G.: 746, 756, 764
Dowell, E. H.: 144, 145, 191, 534
Doyle, T. M.: 111
Draper, N.: 177
Drummond, J. P.: 202
Dubberly, M. J.: 337
Dubovik, O.: 660, 661
Duchatelet, P.: 602
Duda, D. P.: 656
Dudley, K. L.: 768
Duley, J. A.: 113
Dulick, M.: 844
Dunn, H. J.: 238
Dunn, M. H.: 199
Duquesne, N.: 405

E

Echigo, Y.: 330, 381, 382
Eckman, R. S.: 601
Edwards, B. D.: 815
Edwards, J. W.: 14, 22, 133, 134
Edwards, W. C.: 503, 504
Efron, M.: 875
Egoavil, M. A.: 221
Eidson, T. M.: 747, 748
Eisenstat, S. C.: 749
Elayed, K. A.: 504
Elishakoff, I.: 521
Elliott, D. M.: 82, 83, 86
Elsayid-Ele, H.: 507

Ely, J. J.: 396
 Emami, S.: 197
 Emmitt, G. D.: 723
 Emry, S. R.: 883
 Englund, W. C.: 15, 25
 Equall, R. W.: 864, 865
 Erickson, G. E.: 16, 17
 Espy, P. J.: 692
 Etenko, A.: 417
 Eure, K. W.: 88
 Evans, K. F.: 632
 Everett, R. A., Jr.: 337
 Everhart, J. L.: 127, 151, 193, 194, 195
 Exton, R. J.: 456, 848, 849

F

Fairall, C. W.: 636
 Fairlie, T. D.: 578, 601, 634
 Fallows, J.: 92
 Fan, A.: 677, 678, 679, 680
 Fan, K. Y.: 906, 907
 Farassat, F.: 816, 817, 818
 Fasanella, E. L.: 126, 135, 136, 137, 138, 139, 152, 272
 Faulcon, N. D.: 18
 Feldman, M.: 897
 Feltz, W. F.: 660
 Fenn, M. A.: 571, 599, 609
 Fernandez, B.: 163
 Ferrare, K. C.: 881
 Ferrare, R. A.: 642, 657, 658, 659, 660, 661, 676
 Fibich, G.: 775
 Fields, J. M.: 819
 Finley, D. B.: 1
 Finley, T. D.: 250, 485
 Fisher, B. D.: 35
 Fisher, D. F.: 35
 Fishman, J.: 475, 586, 662, 663
 Fitzgerald, C. M.: 863
 Flamm, J. D.: 63
 Flaud, J.-M.: 851
 Fleming, G. A.: 476, 813
 Fleming, G. G.: 837
 Florance, J. P.: 464
 Florance, J. R.: 140
 Foelsche, R. O.: 208, 222

Fogal, P. F.: 613
 Fogdall, L. B.: 369
 Follett, W. W.: 238
 Forman, R. G.: 251
 Forth, S. C.: 251, 522, 776
 Fox, C. H., Jr.: 739
 Fox, J. S.: 410, 431
 Fox, R. L.: 324, 385
 Fraval, E.: 411
 Freeman, F. G.: 729, 731, 732, 733
 Fremaux, C. M.: 74
 Frey, R. A.: 640
 Fridlyander, J. N.: 295
 Frings, G.: 138
 Frink, N. T.: 19
 Frisch, S.: 636
 Froggatt, M. E.: 505
 Fuelberg, H. E.: 584, 634, 635
 Fugitt, J.: 849
 Fuhrmann, H. D.: 49

G

Gainer, T. G.: 66
 Gannaway, F. C.: 632
 Gao, B.-C.: 657, 718, 719, 720
 Garcia, E.: 159
 Gardner, J. E.: 253
 Garg, S.: 469
 Garreaud, R.: 664
 Garrison, J. L., Jr.: 589
 Gary, B.: 583
 Garza, F. R.: 495
 Gaston, M.: 431
 Gatabe, C.: 707
 Gates, T. S.: 254, 258, 259, 260, 261, 266, 273, 274, 294, 341, 355, 356, 357, 358, 359, 360, 361, 362, 363
 Gatlin, G. M.: 20
 Gatski, T. B.: 405, 412, 413, 414, 445, 450, 451, 452, 463
 Gatson, M. J.: 473
 Gause, C. B.: 862
 Geier, E. B.: 671
 Geisler, G.: 870, 878
 Gendron, G.: 560
 Gerber, H.: 678
 Gerhold, C. H.: 820, 821

Geser, A. E.: 746
 Ghaffari, F.: 1
 Ghee, T. A.: 38, 469
 Gierens, K. M.: 682
 Giersch, L. R.: 487, 523, 543
 Giesing, J. P.: 150
 Gifford, R. B.: 111
 Gimmestad, G. G.: 394
 Glaab, L. J.: 86
 Glaessgen, E. H.: 262, 263, 288, 524
 Glass, C. E.: 240, 241, 415
 Glass, D. E.: 264, 416, 417
 Glassman, M.: 868
 Gloss, B. B.: 141, 220
 Gnoffo, P. A.: 418, 419, 430
 Gohn, G. S.: 883
 Golaszewski, R.: 189
 Goldman, A.: 613, 627, 851
 Goldman, A. L.: 69
 Goldsmith, J. E.: 661
 Golembiewski, W. T.: 331
 Gordley, L. L.: 612, 626
 Gottlieb, D. I.: 773
 Gould, D. C.: 420
 Grant, W. B.: 570, 571, 579, 583, 599, 609
 Graves, C. A.: 247
 Graves, S. S.: 21, 22, 491
 Gray, R.: 110
 Green, L. L.: 60, 71, 183
 Green, R. N.: 701
 Greene, F. A.: 421
 Gregg, R. D.: 100
 Gregory, I. M.: 211
 Grenoble, R. W.: 327, 328
 Gribko, J.: 153, 190
 Grierson, A. E.: 142
 Griffith, D. W.: 591
 Grimsley, B. W.: 338, 339, 340, 345, 346
 Grodzinsky, G.: 577
 Grose, W. L.: 601, 724
 Grosveld, F. W.: 813, 814, 822, 823
 Gu, L.: 744
 Guan, H.: 577
 Guendel, R. E.: 186
 Guille, M.: 226
 Gumbert, C. R.: 23, 24
 Gumley, L.: 640

Gupta, S. K.: 665, 709
 Gurdal, Z.: 566

H

Hadid, A. H.: 238
 Haeffelin, M. P.: 653, 701, 702
 Hafley, R. A.: 299
 Haftka, R. T.: 546
 Hagen, D. E.: 573, 574
 Hair, J. W.: 570, 571, 599, 600
 Halbig, M. C.: 264
 Hales, S. J.: 299
 Haley, P. J.: 212, 218
 Hallissy, J. B.: 9
 Hamilton, H. H., II: 402, 427, 428, 429
 Hamilton, P. A.: 632
 Hammond, D. P.: 759
 Hankins, W. W., III: 94
 Hanna, D. C.: 501, 502
 Hanna, T. G.: 539
 Hansen, G. M.: 478
 Hare, D. A.: 505
 Harik, V. M.: 341, 362, 363, 422
 Harper, D.: 599
 Harper, D. B.: 571
 Harper, S. E.: 467
 Harris, C. E.: 260, 263, 265, 266, 267, 268,
 269, 270, 271, 290, 291, 557, 558
 Harrison, J. S.: 334, 365, 367, 368, 373, 374,
 423
 Hart, R. C.: 424, 425, 477, 857
 Harvey, G. A.: 245
 Hayhurst, K. J.: 760, 761, 762
 He, G.: 426
 Heald, J.: 300
 Heath, D. M.: 804
 Heck, M. L.: 117, 196
 Heck, P. W.: 636, 666, 688, 690, 698, 722
 Heeg, J.: 143, 144, 145
 Hefner, J. N.: 827
 Heggernes, P.: 749
 Heikes, B. G.: 582, 619, 699
 Heilman, L. A.: 658, 660, 661
 Heinbockel, J. H.: 892, 893, 897, 902, 920
 Heiner, N. C.: 430
 Helizon, R.: 649
 Hellbaum, R. F.: 385

Henderson, D. A.: 129
 Hergenrother, P. M.: 335, 342, 371, 376, 377
 Herman, R.: 658
 Hernandez, N. D.: 146
 Herring, G. C.: 424, 425, 456, 477, 849, 857
 Herring, H. M.: 261
 Hervig, M. E.: 612
 Hess, R.: 750
 Hesthaven, J. S.: 777
 Heymsfield, A. J.: 720
 Hilburger, M. W.: 432, 497, 525, 526, 527, 528, 529, 530, 556
 Hill, D. J.: 322, 888
 Hinkley, J. A.: 356
 Hinton, D. A.: 89
 Hintsä, E.: 583
 Ho, S-P.: 667
 Hobbs, P. V.: 678, 707
 Hoell, J. M., Jr.: 584
 Hogan, A.: 575
 Holden, C., Jr.: 478
 Holland, S. D.: 15, 25, 81
 Hollis, B. R.: 26, 42, 402, 427, 429
 Holloway, C. M.: 760
 Holloway, N. M.: 471
 Holmes, B. J.: 90, 91, 92
 Holzwarth, R. C.: 257
 Hom, K. W.: 399
 Hoppe, J. C.: 483
 Hopson, P., Jr.: 471
 Horner, G. C.: 147, 479
 Hornung, S.: 378
 Horta, L. G.: 148, 149, 181
 Horvath, T. J.: 402, 403, 427, 428, 429, 430
 Hou, G. J.: 23, 24
 Hou, T-H.: 329, 339, 343, 344, 345
 Houser, S. A.: 93
 Houwing, A. F.: 410, 411, 431, 440, 473, 474
 Howell, P. A.: 805
 Hrinda, G. A.: 237
 Hu, F. Q.: 778, 779
 Hu, Y-X.: 668, 677, 718
 Hu, Y. X.: 669, 719, 720
 Huang, J.: 684, 685
 Hubert, P.: 339, 340
 Huebner, L. D.: 200, 201
 Hueschen, R. M.: 94

Huff, H.: 353
 Hugger, C. P.: 898, 902, 916
 Hughes, S. J.: 887
 Hulcher, A. B.: 327, 328, 346, 347
 Humes, D. H.: 895
 Humphreys, W. M., Jr.: 480, 506
 Hunt, J. L.: 202, 203
 Hunter, C. A.: 27, 80
 Hutcheson, R. L.: 864, 865
 Hutchinson, B. K.: 757
 Hutton, R.: 98
 Huttell, L. J.: 150
 Huyse, L.: 780, 781, 782, 784
 Hwoschinsky, P. V.: 84

I

Ifju, P. G.: 77
 Ilan, B.: 775
 Ingham, J. C.: 492
 Ingram, J. L.: 223, 252
 Insley, G. V.: 571
 Ismail, S.: 600, 642, 658, 659
 Iyer, N.: 597
 Iyer, V.: 151, 194, 195

J

Jackson, E. B.: 217
 Jackson, K. E.: 136, 137, 138, 152, 165, 272
 Jacob, D. J.: 584
 Jacobs, J. A.: 253
 Jacobstein, R.: 866
 Jahshan, S. N.: 899
 James, M. A.: 301, 302, 303, 308, 312, 558
 Jang, S.: 385
 Jaunky, N.: 323, 432, 497, 513
 Jegley, D. C.: 505, 531, 532, 533, 541
 Jenkins, L. N.: 77, 424, 476, 477
 Jensen, B. J.: 348, 349, 350
 Jensen, E. J.: 583
 Jiang, Y.: 618
 Jobson, D. J.: 481
 Johns, B.: 907
 Johnson, D. G.: 482, 581, 587, 588, 628, 691
 Johnson, G. H.: 883
 Johnson, J. P.: 153, 162, 189, 190
 Johnson, T. F.: 273, 274, 564

Johnson, W. M., Jr.: 312
 Johnston, N. J.: 293, 326, 328, 338, 343, 344, 346, 347
 Johnston, W. M.: 351, 352
 Jones, A. L., Jr.: 507
 Jones, D. R.: 95, 116
 Jones, H. E.: 154, 160
 Jones, L. E.: 128, 142
 Jones, M. G.: 78, 824
 Jones, N. B.: 602, 613, 627, 629
 Jones, T. W.: 483, 545
 Jones, Y. T.: 138, 139
 Jordan, J. D.: 223, 224, 228, 232, 252
 Jordan, T. L.: 433, 464
 Joshi, S. M.: 131, 155, 213, 769, 770, 771
 Joslin, R. D.: 28, 29
 Joukoff, A.: 649
 Jow, K. G.: 434
 Juang, J-N.: 191, 534, 536, 882
 Junkerman, W.: 576

K

Kackley, T.: 460
 Kahn, R.: 707
 Kahng, S. K.: 395, 400, 464
 Kaneshiro, H.: 330, 381, 382
 Karal, M. J.: 275
 Kasibhatla, P. S.: 577
 Kassapoglou, C.: 256
 Kato, S.: 670, 671
 Katzberg, S. J.: 589
 Kavaya, M. J.: 590, 592, 723
 Kawa, S. R.: 611
 Kawai, R. T.: 100
 Kawamoto, K.: 672
 Kaya, A. M.: 455
 Kayali, S.: 906, 907
 Keefe, D.: 490
 Kegerise, M. A.: 407
 Kelkar, A. G.: 155, 213, 565, 769
 Kellas, S.: 126, 139, 272
 Keller, D. F.: 14, 133, 134
 Keller, F.: 851
 Kelliher, W. C.: 849
 Kelly, H. N.: 416
 Kelly, J. J.: 73
 Kelly, K. K.: 628

Kemp, J.: 612
 Kennedy, C. A.: 783
 Kenney, P. S.: 767
 Kent, G. S.: 712
 Keys, J. G.: 613
 Khaiyer, M. M.: 651, 653, 673, 696, 702
 Khodataev, K. V.: 849
 Kholodar, D.: 191, 534
 Khorrami, M. R.: 30, 407, 825
 Kiefer, R. L.: 353, 375
 Kilgore, W. A.: 156, 157
 Kim, H.: 699
 Kim, M. Y.: 353, 375, 889, 896, 900, 907, 913, 914, 915, 917, 918, 919, 921
 Kimmel, W. M.: 304
 Kinard, W. H.: 245, 378
 Kincaid, R. K.: 740
 King, R. A.: 407, 435
 Kinzie, K. W.: 826, 842
 Klang, E. C.: 555
 Kleb, M. M.: 584, 601
 Kleb, W. L.: 461
 Klein, P. D.: 815
 Klein, S. A.: 700
 Klein, V.: 43, 50
 Kley, D.: 628
 Knight, N. F., Jr.: 139, 513
 Koch, G. J.: 508, 600, 863
 Kodiyalam, S.: 158, 741, 742
 Koelling, J. H.: 111
 Koganti, G.: 565
 Kohl, R.: 758
 Kooi, S. A.: 658, 659
 Koon, R. W.: 335
 Koontz, S.: 906, 907
 Koppen, D. M.: 96
 Koppen, S. V.: 396, 768
 Kordes, M. E.: 436
 Korte, J. J.: 238, 766, 920
 Kostiuk, P. F.: 162, 163
 Kramer, L. J.: 114, 115
 Krashanitsa, R.: 553
 Kratz, D. P.: 581, 665, 691
 Krishnamurthy, T.: 559
 Krueger, R.: 276, 277, 278, 283, 284, 286
 Krueger, S. K.: 674, 675
 Kudva, J. N.: 159

Kuhn, N. S.: 304
 Kula, R.: 163
 Kumar, A.: 202, 827
 Kumfert, G.: 749
 Kunz, D. L.: 154, 160
 Kurdila, A.: 186
 Kvaternik, R. G.: 161, 172, 173, 178, 922

L

Lach, C. L.: 563
 Ladd, I. H.: 475
 Lake, M. S.: 300, 535
 Lallman, F. J.: 209, 210
 Lamar, J. E.: 9, 31, 32, 33, 34, 35
 Lambeth, J. D.: 607, 608
 Lan, J. H.: 828
 Lanam, R. D.: 417
 Langston, C. W.: 4, 161, 172, 173, 178
 Larar, A. M.: 594, 598, 676
 Larkin, M.: 63
 Lash, T. J.: 245
 Lassiter, J. O.: 175, 544
 Latorella, K. A.: 85, 97, 98
 Lawson, R. E.: 513
 Lazard, C. J.: 849
 Lazarus, S. M.: 674
 Lazos, B. S.: 490
 Leavitt, L. D.: 36
 Lee, C.: 632
 Lee, D. A.: 162
 Lee, J. T.: 832
 Lee, J. W.: 509
 Lee, R. B., III: 649, 701
 Lee, W.: 234
 Lefer, B.: 575, 576, 582
 Legan, B. M.: 113
 Leighty, B. D.: 223, 224, 231, 232, 252
 Levine, A. S.: 614
 Levine, J. S.: 615, 616, 617, 883, 884, 885, 886
 Lew, J-S.: 536
 Lewis, R. M.: 781
 Li, F.: 30
 Li, J.: 537
 Li, W.: 784
 Li, Y. W.: 521
 Librescu, L.: 166, 167, 186

Liechty, D. S.: 429
 Lillehei, P. T.: 354, 368
 Lilley, G. M.: 838
 Lim, K. B.: 246
 Lin, B.: 667, 677, 678, 679, 680
 Line, W.: 177
 Lingenfelser, G. S.: 625, 630, 724
 Little, M. E.: 436
 Little, R. E.: 385
 Liu, D. D.: 192
 Liu, S.: 577
 Liu, T.: 225, 226, 250, 465, 468, 469, 484, 485
 Liu, X-M.: 871, 872
 Llorente, I. M.: 754, 787
 Lockard, D. P.: 838
 Lockwood, M. K.: 247
 Loeb, N. G.: 645, 671, 681, 701
 Long, D.: 153, 162, 163
 Loos, A. C.: 338, 339, 340
 Lopatin, C. M.: 384
 Louie, R.: 321
 Love, M.: 150
 Lovejoy, A. E.: 532, 533
 Lowther, S. E.: 364
 Lucker, P. L.: 478
 Luckring, J. M.: 37, 38
 Luedtke, L. A.: 253
 Luettgen, G.: 745, 751
 Luo, L-S.: 437
 Luo, Y.: 674, 675
 Lyle, K. H.: 122, 136, 164, 165

M

Mace, G. G.: 654, 655, 675, 689
 Machie, H. B.: 873
 Mackenzie, A. I.: 486
 Madaras, E. I.: 255, 279, 807, 829
 Madden, M. M.: 763
 Madenci, E.: 516
 Madronich, S.: 576
 Maestrello, L.: 830, 831
 Maghami, P. G.: 248
 Mahesh, A.: 652
 Mahieu, E.: 602, 627
 Mahoney, M. J.: 583, 658, 659
 Malekpour, M. R.: 750

Mallinson, S.: 440
Maly, K.: 871, 872, 876, 877
Mankins, J. C.: 242
Mantegazza, P.: 174
Mantz, A. W.: 845, 850, 854
Mao, Y.: 769
Marchello, J. M.: 328
Marchionini, G.: 870, 878
Marcolini, M. A.: 815
Marsh, W. D.: 503, 504
Marshall, B. T.: 612, 692
Martin, J. G.: 62
Martins, V.: 707
Marzocca, P.: 166, 167, 186
Masarati, P.: 174
Mason, B. H.: 183, 538
Massey, S. J.: 39
Matera, V.: 501
Mathur, G. P.: 832
Matthews, W. A.: 613
Matthews, W. T.: 337
Mau, J. C.: 464
Mauery, T. M.: 766
Mavriplis, D. J.: 785, 786
Mayero, M.: 752
Mazanek, D. D.: 242
McAfee, R. B.: 868
McClinton, C. R.: 168, 202, 203, 204, 205, 206
McCluer, M.: 810
McCormick, M. P.: 628
McFarland, E. R.: 883
McFarquhar, G.: 720
McGowan, A. R.: 214, 215, 216
McGowan, D. M.: 539, 540
McHugh, M. J.: 610, 612
McKay, C. P.: 886
McMahon, W. M.: 338
McNeal, R. J.: 584
McNeill, S. R.: 539
Meadows, B. L.: 504
Meier, A.: 591
Menzel, W. P.: 640
Mere, P.: 473
Merski, N. R.: 240, 241, 403, 406, 429
Mertens, C. J.: 580, 581, 691
Messner, W. C.: 882
Meyers, J. F.: 509
Michelsen, H. A.: 628
Micol, J. R.: 227
Mikovitz, J.: 709
Mikula, P.: 729
Mikulka, P. J.: 732, 733
Milholen, W. E., II: 40
Miller, J.: 918
Miller, R. M.: 63
Mills, F. P.: 618
Miloshevich, L. M.: 720
Mineck, R. E.: 41
Minguet, P. J.: 277, 278
Minnis, P.: 636, 637, 644, 646, 647, 650, 651, 652, 653, 654, 655, 656, 664, 666, 667, 672, 673, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 694, 695, 696, 697, 698, 702, 703, 708, 710, 712, 721, 722
Mirick, P. H.: 4, 45
Mirkin, C. A.: 252
Mishchenko, M. I.: 718, 719
Mistree, F.: 766
Mitcheltree, R. A.: 406, 887
Mlynczak, M. G.: 581, 691, 692, 693
Moeller, K. J.: 768
Mondoloni, S.: 99
Monell, D. W.: 244
Moniuszko, M.: 491, 492
Montero, R. S.: 754, 787
Moody, J. L.: 599
Moon, D.: 541
Moore, A. A.: 244
Moore, A. S.: 881
Moore, J.: 353
Moore, T. C., Sr.: 505
Morelli, E. A.: 169, 210
Morgan, F.: 692
Morris, A. T.: 758, 798, 799
Morrison, J. H.: 66
Morton, M.: 177
Moses, D.: 112, 113
Moses, R. W.: 14, 129, 133, 134, 170, 171
Moss, J. N.: 415, 438, 439
Mossi, K.: 441
Mudford, N. R.: 410, 431
Munoz, C.: 746, 752, 756, 764

Muravyov, A.: 550
 Murcray, F. H.: 602
 Murcray, F. J.: 613, 627, 629
 Murphy, K. J.: 26, 42
 Murphy, P. C.: 43, 50, 210
 Murri, G. B.: 280
 Murtagh, D.: 692
 Mysko, S. J.: 66

N

Nagarathnam, K.: 510
 Nagendra, S.: 546
 Naguib, A. M.: 506
 Namkung, M.: 305, 310, 320, 321, 324, 442, 858
 Nark, D. M.: 818
 Naser, A. S.: 542
 Nasiri, S. L.: 640, 719, 720
 Natarajan, M.: 601, 607, 608, 626
 Nealy, J. E.: 889, 890, 895, 896, 901, 902, 913, 914
 Nedoluha, G.: 628
 Nelson, G. L.: 383
 Nelson, J. M.: 100
 Nelson, M. L.: 870, 871, 872, 874, 875, 876, 877, 878
 Nemeth, M. P.: 306, 341, 514, 515, 526, 527
 Nemtchinov, V.: 618
 Newell, R. E.: 584, 609, 635
 Newman, D. J.: 243
 Newman, J. A.: 304, 307
 Newman, J. C., Jr.: 251, 301, 302, 303, 308, 309, 312, 313, 314, 337, 557, 558
 Newman, P. A.: 23, 24, 60, 71
 Nguyen, L.: 637, 647, 650, 653, 656, 673, 683, 686, 688, 694, 695, 696, 697, 702, 721, 722
 Nguyen, T. X.: 396
 Nicholson, L. M.: 355, 356, 357, 358, 359, 360, 361
 Nielsen, E. J.: 44, 452, 457
 Nikitenki, Y.: 643
 Nikjoo, H.: 891
 Nilsson, J.: 502
 Nixon, M. W.: 146, 161, 172, 173, 174, 178
 Nolan, S. K.: 671
 Nolf, S. R.: 120

Nolt, I. G.: 632
 Noonan, K. W.: 45
 Noor, A. K.: 512
 Nordeen, M. L.: 651, 673, 696, 697
 Norman, R. M.: 114, 115
 Notari, A.: 571, 599
 Notholt, J.: 602, 627
 Novacek, P. F.: 117, 196
 Nowak, R. J.: 26, 42

O

O'Brien, T. K.: 276, 277, 278, 281, 282, 283, 284, 285, 286
 O'Byrne, S.: 410, 440, 473, 474
 O'Connor, C. J.: 101, 102, 104, 105
 Obara, C. J.: 35, 231
 Odegard, G. M.: 360, 361, 362, 363
 Oglesby, D. M.: 223, 228, 232, 252, 465
 Ogren, J. A.: 661
 Olguin, D. M.: 430
 Olson, J. R.: 582, 601, 619, 634
 Oltmans, S.: 575, 628
 Orient, G. E.: 238
 Orwoll, R. A.: 375
 Ounaies, Z.: 364, 365, 366, 368, 423, 433, 441, 458, 460
 Owens, L. R., Jr.: 20, 46, 64, 76
 Owre, S.: 765

P

Pack, L. G.: 47, 48, 407
 Padula, S. L.: 784
 Paik, S. M.: 305, 310, 320, 442, 858
 Paison, O. S.: 726
 Palikonda, R.: 651, 682, 683, 698
 Palma, P. C.: 440, 473
 Palmieri, F. L.: 379
 Palsson, O. S.: 725, 727, 728, 735
 Palumbo, D. L.: 390, 833
 Pamadi, B. N.: 49, 50
 Pao, J. L.: 10
 Pao, S. P.: 842
 Papanicolopoulos, C. D.: 394
 Papinniemi, A.: 410
 Pappa, R. S.: 175, 487, 543, 544, 545, 813
 Parasuraman, R.: 733

Parikh, P. C.: 51
 Parikh, S. M.: 753
 Paris, F.: 176
 Paris, I. L.: 277, 278, 282, 283, 285, 286
 Park, C.: 354, 364, 365, 366
 Park, J. H.: 620
 Park, O.: 546
 Parker, F. R.: 805
 Parker, P. A.: 20, 177, 229, 230
 Parrott, T. L.: 78, 824
 Patrick, M. L.: 748
 Pattuelli, M. C.: 875
 Pawlowski, K. J.: 367
 Perey, D. F.: 321
 Perrin, A.: 851
 Persans, A. E.: 889, 900, 921
 Peterson, K. E.: 345
 Peterson, L. D.: 300
 Pethick, D. G.: 697
 Petros, M.: 508, 511, 859
 Pettit, D.: 103
 Petway, L. B.: 503, 504
 Pfister, L.: 583, 699
 Piasek, R. S.: 307, 311, 315, 316, 557
 Piatak, D. J.: 161, 172, 173, 174, 178
 Pickering, K. E.: 699
 Pierce, R. B.: 578, 601, 634
 Pincus, R.: 700
 Pinelli, T. E.: 868
 Pinkerton-Florance, J. L.: 159
 Pipes, R. B.: 3, 339, 340, 346, 347
 Pirzadeh, S. Z.: 52, 53
 Pitt, D. M.: 129
 Pitts, M. C.: 478, 621
 Pizzochero, A.: 170, 171
 Pliske, R.: 98
 Plunkett, C. L.: 743
 Poag, C. W.: 883
 Podboy, G. G.: 199
 Podolske, J. R.: 658
 Poe, C. C., Jr.: 287
 Poirier, D. M.: 68
 Poole, L. R.: 622, 668
 Pope, A. T.: 725, 726, 727, 728, 730, 731, 732, 735
 Pope, S. K.: 652
 Pothen, A.: 749

Pototzky, A. S.: 124, 179, 542
 Povitsky, A.: 443, 444
 Powars, D. S.: 883
 Powell, C. A.: 834, 841
 Powell, R. W.: 239, 247
 Powers, W. T.: 472
 Prabakhakaran, R.: 337
 Prabhu, R. K.: 26, 42, 54, 55, 56, 57, 58, 59
 Prazenica, R.: 186
 Predko, S.: 632
 Priestley, K. J.: 701
 Prieto, M.: 754
 Prinzel, L. J., III: 86, 106, 729, 730, 731, 732, 733, 735
 Prior, E. J.: 253
 Pritchard, J. I.: 180
 Pui, D.: 573, 574
 Purgold, G. C.: 707
 Puster, R. L.: 221
 Putko, M. M.: 60, 71

Q

Quach, C. C.: 95, 768
 Quagliaroli, J. M.: 487, 543
 Qualls, G. D.: 889, 890, 891, 898, 902, 906, 907, 916
 Queen, E. M.: 239
 Quinn, J. K.: 881
 Quintana, J.: 664

R

Rahman, Z.: 481
 Rahmani, S.: 758
 Raj, P.: 1
 Raju, I. S.: 263, 288, 524, 788
 Randall, D. A.: 715, 716, 717
 Raney, D. L.: 217, 367
 Ransom, J. B.: 547, 548, 549
 Raper, J. L., Sr.: 584
 Rapp, A. D.: 653, 673, 688, 696, 702, 703
 Rau, M. A.: 767
 Rault, D. F.: 704
 Rausch, V. L.: 204, 206
 Raveh, D. E.: 186, 187
 Rawls, J. R.: 881
 Ray, A.: 131

Ray, A. J.: 881
 Re, R. J.: 61
 Reaves, M. C.: 148, 149, 181
 Redemann, J.: 707
 Reeder, J. R.: 263, 287
 Reichle, D. J., Jr.: 498
 Reilly, T.: 866
 Remer, L. A.: 657, 707
 Remsberg, E. E.: 610, 612, 618, 623, 624, 625, 626, 628, 630, 631
 Reubush, D. E.: 62, 205
 Reukauf, P.: 204, 205
 Revercomb, H.: 676
 Rey, N. C.: 63
 Rhew, R. D.: 484
 Richards, M. A.: 394
 Richter, U.: 618
 Rierson, L. K.: 762
 Riggins, J. O.: 906, 907
 Riley, C. J.: 26, 406
 Riley, M. E.: 881
 Rinsland, C. P.: 591, 602, 613, 627, 629, 844, 845, 846, 847, 850, 851, 853, 854
 Rivera, J. A., Jr.: 140
 Rivers, H. K.: 289
 Rivers, N. A.: 182
 Rivers, R. A.: 182
 Rivers, S. M.: 64, 66, 76
 Rizzi, S. A.: 550, 835, 916
 Robbins, W. E.: 147
 Roberts, M. J.: 397
 Robinson, J. H.: 814, 823, 836
 Robinson, J. S.: 62
 Roble, R. G.: 693
 Rock, K. E.: 200, 201
 Rocker, J.: 879, 880
 Rodgers, W. G., Jr.: 119, 120
 Rodriguez, C. G.: 207
 Rogers, R. C.: 198, 208, 222
 Roithmayr, C. M.: 236, 249
 Rokni, M.: 445
 Rollins, C. H.: 235
 Roncaglia, G. J.: 880
 Rose, C. A.: 528, 551, 557, 558, 567, 568
 Rosenlof, K. H.: 628
 Ross, B. P.: 175, 544
 Ross, E. E.: 398

Ross, R. W.: 489
 Roth, J. R.: 453
 Rouse, J. H.: 368
 Rouse, M.: 552
 Rubinstein, R.: 65, 407, 426, 446, 447, 448, 449
 Ruf, E. G.: 200, 201
 Rumsey, C. L.: 66, 67, 68, 199, 405, 448, 450, 451, 452
 Russell, D. A.: 369
 Russell, J. M., III: 602, 612, 618, 627, 628, 629
 Rutan, B.: 92
 Ruth, M.: 49
 Rutishauser, D. K.: 87, 101, 102, 104, 105
 Rutledge, C. K.: 707
 Rutllant, J.: 664
 Ryaben'kii, V. S.: 789
 Ryan, D. A.: 399

S

Sachse, G. W.: 634, 635, 658, 659, 699
 Saephan, S.: 74
 Saether, E.: 564
 Saganti, P. B.: 903
 Salas, A. O.: 183, 238
 Salas, M. D.: 444, 448, 787
 Samareh, J. A.: 183, 790, 791
 Sander, S. P.: 618
 Sanders, B.: 159
 Sanders, T.: 573, 574
 Sandholm, S. T.: 577, 582, 699
 Sandler, V. S.: 295
 Sandridge, C. A.: 902, 916
 Sankar, B. V.: 546
 Sankaran, S. N.: 289, 296
 Saunders, M. P.: 886
 Sayre, J.: 110
 Scales, E. F.: 321
 Scerbo, M. W.: 106, 732, 733
 Schaff, J. R.: 280
 Schauer, A. G.: 631
 Scheiman, D.: 378
 Schein, D. B.: 826
 Schimmerling, W.: 917
 Schmidlin, F. J.: 630, 631, 692
 Schoeberl, M. R.: 583, 611

Scholz, R. C.: 385
 Schryer, J. L.: 252
 Schumann, U.: 682
 Schuster, D. M.: 14, 22, 133, 134, 150, 184
 Schutte, P. C.: 734
 Schwartz, R. J.: 509
 Scott, R. C.: 185
 Sealey, B. S.: 224, 231, 466
 See, T.: 378
 Seifert, A.: 47, 48
 Selkirk, H. B.: 583
 Senzig, D. A.: 837
 Serbyn, M. R.: 496
 Seshadri, B. R.: 312, 313, 314
 Severance, K.: 490
 Shams, Q. A.: 395, 400, 472, 491, 492
 Shankar, N.: 765
 Shchetkovskiy, A.: 417
 Shenoy, R. N.: 264
 Shepherd, K. P.: 837
 Sherman, D. L.: 394
 Sherman, D. M.: 453
 Shetter, R.: 575, 576, 582
 Shih, A. T.: 198, 208, 222
 Shin, J-Y.: 454, 455
 Shin, S-J.: 4
 Shinn, J. L.: 892, 893, 904, 905, 908, 918
 Shirinzadeh, B.: 456, 849
 Shkarayev, S.: 553
 Short, G. W.: 475
 Shu, C-W.: 738, 773, 792, 796, 797
 Shuart, M. J.: 265, 267, 268, 270, 271, 290, 291
 Shupe, M.: 683
 Sidilkover, D.: 457
 Sikora, J. G.: 289
 Silva, W. A.: 125, 166, 167, 186, 187
 Siminiceanu, R.: 745
 Simonsen, L. C.: 903, 918
 Simpkins, P. A.: 244
 Simpson, J. W.: 321
 Simpson, M. A.: 832
 Simpson, T. W.: 766
 Singer, B. A.: 825, 838
 Singh, H. B.: 582
 Singh, U. N.: 511, 592, 593, 600, 859
 Singleterry, R. C., Jr.: 353, 892, 897, 899, 906, 907, 908, 918
 Singleton, J. D.: 45, 161, 172, 173
 Siochi, E. J.: 354, 365, 367, 368, 370
 Sitz, J.: 204, 205, 206
 Slade, K. N.: 554
 Sleight, D. W.: 263, 524, 564
 Smart, M. K.: 69
 Smeltzer, S. S., III: 555
 Smith, C. D.: 491
 Smith, G. L.: 641
 Smith, J. G., Jr.: 335, 364, 366, 371, 380
 Smith, M. A.: 844, 845, 846, 847, 850, 851, 852, 853, 854
 Smith, R. C.: 441, 458, 460
 Smith, S. A.: 559
 Smith, S. W.: 311, 315, 316
 Smith, W. L.: 594, 598, 676, 705, 706
 Smith, W. L., Jr.: 636, 637, 646, 653, 655, 672, 673, 687, 688, 689, 695, 702, 703, 707
 Snow, J.: 619
 So, R. M.: 463
 Sobieszczanski-Sobieski, J.: 740, 741, 742, 743, 744
 Solomon, W. D.: 826
 Soloway, D. I.: 212, 218
 Song, K. D.: 331
 Song, X.: 340
 Soulen, P. F.: 720
 Southward, R. E.: 372
 Spain, C. V.: 14, 133, 134, 542
 Spalart, P. R.: 793
 Spangenberg, D. A.: 644, 652, 679, 683, 708
 Sparrow, V. W.: 839, 840
 Spearman, M. L.: 188
 Spinks, R.: 870
 Spitz, W.: 189
 Sprinkle, D. R.: 231
 St. Clair, T. L.: 329, 330, 336, 370, 381, 382, 383
 Stackhouse, P. W., Jr.: 665, 709
 Stals, L.: 755
 Stanley, L. E.: 292
 Staritz, P. J.: 889
 Stark, J. M.: 106

Starnes, J. H., Jr.: 257, 269, 270, 271, 291,
293, 514, 515, 516, 521, 527, 528, 529,
530, 546, 551, 556, 557, 558, 567, 568
Staroselsky, A.: 522, 776
Stenholm, I.: 860
Stephen, T. M.: 613, 627, 851
Stewart, D.: 735
Stewart, E. C.: 107
Stewart, S. H.: 873
Stoakley, D. M.: 372
Stokes, A. F.: 117, 196
Stouffer-Coston, V.: 153, 163, 190
Striepe, S. A.: 239
Striz, A. G.: 743
Stroud, W. J.: 559
Strovers, B. K.: 62
Su, J.: 334, 367, 373, 374
Subramanian, C.: 466
Sugden, P. C.: 767
Sullins, A. D.: 459
Sullivan, B. M.: 833, 834, 841
Sullivan, J. P.: 226
Sun-Mack, S.: 646, 666, 688, 689, 690, 698,
710, 722
Sussmann, R.: 627
Swanson, R. C., Jr.: 70
Szatkowski, L. S.: 881

T

Tadghighi, H.: 810
Talbot, R. W.: 582, 699
Taleghani, B. K.: 479
Taminger, K. M.: 510
Tan, D.: 582
Tang, D.: 191
Tang, L.: 192
Tao, G.: 770, 771
Tappan, N. D.: 632
Taylor, A. C., III: 60, 71
Taylor, G. R.: 886
Taylor, N. J.: 469
Tenney, D. R.: 2, 3
Tessler, A.: 516, 553, 560
Teter, J. E., Jr.: 147, 887
Thibeault, S. A.: 353, 375, 900, 908, 918
Tho, C. H.: 744

Thomas, J. L.: 72, 448, 772, 774
Thomas, R. H.: 73, 818, 842
Thomason, L. W.: 595, 596, 597, 621
Thompson, A. M.: 699
Thompson, C. M.: 376, 377
Thompson, R. A.: 26, 42, 402, 427
Thompson, R. E.: 612, 626
Thornton, D. C.: 577
Tietjen, A.: 240, 241
Tillman, G.: 63
Timmerman, J.: 121
Tinetti, A. F.: 19, 73
Tinker, M. L.: 554
Tiwari, S. N.: 347
Tobin, D. C.: 676
Tooman, T. P.: 653, 660, 661
Toon, G. C.: 628
Toon, O. B.: 583
Toonman, T.: 657
Towne, C. E.: 68
Townsend, J. C.: 183
Tracy, M. B.: 78, 824
Treppe, C. R.: 572, 621
Treppe, Q.: 644, 688, 690, 698, 708, 710
Trexler, C. A.: 69
Tripathi, R. K.: 892, 896, 908, 909, 910, 911,
912, 913, 914, 915
Troeger, L. P.: 317, 318
Trujillo, A. C.: 108, 109
Tsai, C-Y.: 198, 208, 222
Tsay, S-C.: 718
Tsou, J. J.: 594
Tsynkov, S. V.: 775, 789, 794
Turchaninov, V. I.: 789
Turnbull, A.: 103
Turner, D. D.: 657, 660, 661
Turner, M. D.: 725
Turner, P. W.: 502
Turner, T. L.: 561, 562, 563, 843
Tweed, J.: 900, 915, 921
Twohy, C. H.: 573

U

Uijt de Haag, M.: 110
Underwood, P. J.: 193

Upchurch, B. T.: 466
Uttal, T.: 679, 683

V

Valero, F. P.: 652, 653, 685, 702
Van Dam, C. P.: 74, 182
Vanek, M.: 632
Vann, L. B.: 668, 712
Vasquez, P.: 325
Vatsa, V. N.: 7, 19
Vay, S. A.: 582, 634, 635
Veerhusen, D. S.: 761, 762
Veiga, R. E.: 572, 712
VerHage, J. E.: 902, 916
Viken, S. A.: 27, 28, 29
Vipperman, J. S.: 390
Virgin, L. N.: 554
Visentine, J. T.: 378
Vogler, W.: 751
Voland, R. T.: 168
Volk, J.: 150
Voracek, D. F.: 148, 149
Vu, T.: 138

W

Wagner, J. A.: 318, 319
Wahls, R. A.: 46, 64, 75, 76
Waithe, K. A.: 39
Walker, E. L.: 194, 195
Wallace, T. A.: 296
Waller, M. C.: 111
Walsh, B. M.: 501, 502, 859, 864, 865
Walsh, J. L.: 183, 538
Walters, R. W.: 782
Wang, D.: 711
Wang, J. T.: 263, 564
Wang, L.-P.: 426
Wang, P.-H.: 712
Wang, Z.: 264
Warburton, T.: 777
Ware, J.: 889, 900, 921
Waszak, M. R.: 77, 219, 476
Waters, W. A., Jr.: 556
Watkins, A. N.: 223, 232, 252
Watson, K. A.: 322, 332, 333, 364, 365, 366,
379, 380, 888

Watson, W. R.: 78, 824
Weber, M.: 740
Weilmuenster, K. J.: 403
Weinstein, L. M.: 493
Weiser, E. S.: 329, 330, 336, 381, 382, 383
Welch, C. H.: 639
Weller, R.: 575
Wendt, J.: 240, 241
West, L. L.: 394
Westberg, D. J.: 634, 635
Weston, R. P.: 183
Wey, C. C.: 573, 574
White, A. L.: 800, 801, 802, 803
Whitefield, P.: 573, 574
Whitley, K. S.: 294, 357, 358, 359
Wie, B.: 236, 249
Wielicki, B. A.: 643, 645, 666, 690, 707
Wieman, R.: 458, 460
Wieseman, C. D.: 170, 171
Wilber, A. C.: 665
Wilbur, M. L.: 4, 45
Wilenski, M. S.: 326, 328
Wilkins, R.: 353
Wilkinson, S. P.: 453
Willard, S. A.: 311
Williams, D. M.: 111
Williams, J. A.: 571, 599
Williams, J. R.: 894
Williams, L. J.: 118
Williams, M. K.: 383
Wilmoth, R. G.: 240, 241
Wilson, J. W.: 353, 375, 889, 890, 891, 892,
893, 894, 895, 896, 897, 898, 900, 901,
902, 903, 905, 906, 907, 908, 909, 910,
911, 912, 913, 914, 915, 916, 917, 918,
919, 920, 921
Wilson, R. S.: 649
Wimmers, A. J.: 599
Wincheski, R. A.: 305, 310, 320, 321, 324,
442, 858
Winfrey, W. P.: 804, 805, 806, 867
Wing, D. J.: 112, 113
Winker, D. M.: 668, 718, 719
Winkler, W. W.: 369
Winstead, E. L.: 573, 574
Wiscombe, W.: 718, 719, 720
Wise, K.: 360, 361, 362, 363

Witkowski, D. P.: 66

Witte, D. W.: 200, 201

Wong, D. T.: 114, 115

Wong, T-C.: 10

Wong, T.: 641

Wood, K. H.: 862

Wood, R. M.: 6, 27, 79, 80

Wood, S. W.: 613

Wood, W. A.: 26, 421, 461

Woodard, S. E.: 385, 565

Woodell, G. A.: 481

Woods, W. C.: 25, 81

Woods-Vedeler, J. A.: 545

Wu, K. C.: 566

Wu, M-C.: 862

Wu, X.: 462

Wynosky, T.: 63

X

Xapsos, M. A.: 905

Xie, S. C.: 713, 714

Xu, K-M.: 670, 674, 675, 700, 711, 713, 714,
715, 716, 717

Xu, K.: 795

Y

Yan, J.: 796

Yang, M.: 870, 878

Yang, P.: 668, 718, 719, 720

Yang, R. J.: 744

Yeager, W. T., Jr.: 4, 45, 146, 922

Yee, J. H.: 692

Yi, H. Y.: 721

Yio, J. J.: 713, 714

Yoo, S. M.: 442

Yoshizawa, N.: 919

Yost, W. T.: 297, 298

Young, D. F.: 637, 643, 646, 647, 654, 666,
677, 680, 686, 687, 688, 689, 690, 722

Young, R. D.: 551, 557, 558, 567, 568

Young, S. D.: 95, 110, 116

Yu, J.: 508, 511, 593, 600, 859

Yuan, F. G.: 287

Yuchnovicz, D. E.: 117, 118

Yue, G. K.: 633

Yung, Y. L.: 618

Z

Zak, J. A.: 119, 120

Zalameda, J. N.: 494, 806

Zander, R.: 602, 627, 629

Zapp, N.: 902

Zawodny, J. M.: 597

Zeitlin, C. J.: 375, 900, 921

Zerbst, U.: 309

Zhang, M.: 643

Zhang, Y-T.: 797

Zhao, C. Y.: 463

Zhou, D. K.: 594, 598, 676

Zhou, Y-L.: 643

Zhou, Y.: 449

Zubair, M.: 871, 872

Zuckerwar, A. J.: 495, 496

Organization Index

Office of Director (A)

404, 422, 423, 424, 425, 426, 432, 433, 434, 436, 437, 441, 442, 443, 444, 448, 449, 454, 455, 458, 460, 462, 512, 736, 737, 745, 746, 747, 748, 749, 751, 752, 753, 754, 755, 773, 775, 777, 779, 780, 781, 782, 784, 785, 786, 787, 789, 792, 794, 795, 796, 797

Wind Tunnel Facility Group Office (AI)

141, 220

Space Access and Exploration Program Office (OC)

13, 62, 168, 203, 204, 205, 206, 207, 417, 887

Aerospace Vehicle Systems Technology Office (OD)

2, 3, 90, 91, 92, 214, 215, 216

Aero-Performing Center Program Management Office (OH)

12

Project Implementation Office (OK)

881

Aerospace Systems, Concepts and Analysis Competency (RA)

15, 23, 24, 49, 50, 60, 71, 93, 100, 153, 158, 162, 163, 183, 188, 189, 190, 233, 234, 236, 237, 238, 239, 242, 244, 247, 249, 399, 406, 566, 589, 740, 741, 742, 743, 744, 759, 790, 791, 891, 902

Aerodynamics, Aerothermodynamics and Acoustics Competency (RB)

1, 5, 6, 7, 8, 10, 11, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 75, 76, 78, 79, 80, 81, 127, 151, 154, 156, 157, 160, 177, 193, 194, 195, 197, 198, 199, 200, 201, 202, 208, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 240, 241, 250, 252, 304, 325, 390, 395, 400, 401, 402, 403, 405, 407, 410, 411, 412, 413, 414, 415, 418, 419, 421, 427, 428, 429, 430, 431, 435, 438, 439, 440, 445, 446, 447, 450, 451, 452, 453, 456, 457, 461, 463, 464, 465, 466, 467, 468, 469, 470, 473, 474, 476, 477, 480, 483, 484, 485, 489, 491, 492, 493, 495, 496, 506, 509, 550, 561, 562, 563, 738, 739, 766, 772, 774, 778, 783, 793, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 848, 849, 857

Structures and Materials Competency (RC)

4, 14, 122, 123, 124, 125, 126, 128, 129, 132, 133, 134, 135, 136, 137, 138, 139, 140, 142, 143, 144, 145, 146, 148, 149, 150, 152, 159, 161, 164, 165, 166, 167, 170, 171, 172, 173,

174, 175, 176, 178, 179, 180, 181, 184, 185, 186, 187, 191, 192, 251, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 397, 408, 409, 416, 459, 479, 487, 494, 497, 505, 510, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 564, 565, 567, 568, 776, 788, 804, 805, 806, 807, 829, 858, 862, 866, 867, 888, 889, 890, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922

Airborne Systems Competency (RD)

9, 43, 74, 77, 82, 83, 84, 85, 86, 87, 88, 89, 94, 95, 96, 97, 98, 99, 101, 102, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 131, 155, 169, 182, 196, 209, 210, 211, 212, 213, 217, 218, 219, 246, 248, 386, 387, 388, 389, 392, 393, 394, 396, 398, 481, 486, 585, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 750, 756, 757, 758, 760, 761, 762, 764, 765, 767, 768, 769, 770, 771, 798, 799, 800, 801, 802, 803, 882

Atmospheric Sciences Competency (RE)

471, 472, 475, 507, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 586, 591, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 724, 763, 844, 845, 846, 847, 850, 851, 852, 853, 854, 855, 856, 860, 869, 883, 884, 885, 886

Systems Engineering Competency (RF)

130, 147, 221, 235, 243, 245, 324, 391, 420, 478, 482, 490, 498, 499, 500, 501, 502, 503, 504, 508, 511, 587, 588, 590, 592, 593, 632, 723, 859, 863, 864, 865, 870, 871, 872, 874, 875, 876, 877, 878

Office of Safety and Mission Assurance (SC)

103

Office of Education (SH)

253, 868

Office of the Chief Information Officer (SL)

873, 879, 880

Program Number Index

Program No. 101-15-01 918	Program No. 242-23-55 524
Program No. 101-21-23 890, 895, 896, 897, 898, 899, 900, 901, 903, 908, 909, 911, 912, 915, 919, 920	Program No. 242-33-01 49
Program No. 111-15-01 894	Program No. 242-33-03 17, 238, 264, 416, 766
Program No. 227-92-43 881	Program No. 242-35-20 16
Program No. 229-01-02 638, 639, 641, 643, 645, 646, 649, 665, 666, 671, 674, 675, 677, 679, 680, 681, 686, 689, 690, 691, 693, 694, 695, 700, 701, 703, 708, 710, 711, 713, 714, 717, 869	Program No. 242-80-01 25, 26, 42, 54, 55, 56, 57, 81, 241, 401, 402, 427, 429
Program No. 229-01-04 640, 719, 720	Program No. 242-82-00 371
Program No. 229-07-27 663	Program No. 242-82-76 287, 292, 540
Program No. 229-10-02 667, 670, 707, 715, 716, 722	Program No. 247-00-00 616
Program No. 229-10-32 572, 621, 648, 704	Program No. 247-00-99 272
Program No. 242-23-02 263, 273, 560	Program No. 258-70-21 498, 501, 502, 503, 511, 864, 865
Program No. 242-23-04 296	Program No. 258-70-22 504, 592, 593
	Program No. 258-80-00 486, 581

Program No. 259-40-01

668, 669, 718

Program No. 259-40-04

478

Program No. 274-00-00

377, 481, 494, 615, 617, 855, 856, 883,
886

Program No. 274-00-01

342

Program No. 274-00-97

131, 589

Program No. 282-10-01

141, 220, 404, 705, 706

Program No. 282-10-11

512

Program No. 282-30-10

873, 880

Program No. 291-01-19

709

Program No. 291-01-61

601, 724

Program No. 291-07-07

609, 611

Program No. 291-07-14

657

Program No. 321-21-08

604

Program No. 323-71-01

103

Program No. 344-96-00

475, 590, 723

Program No. 359-02-01

647, 684, 685, 721

Program No. 370-21-08

603, 605, 606, 607, 608

Program No. 406-10-00

917

Program No. 494-21-11

245, 378

Program No. 505-90-52

422, 423, 424, 425, 426, 432, 433, 434,
436, 437, 441, 442, 443, 444, 448, 449,
454, 455, 458, 460, 462, 736, 737, 745,
746, 747, 748, 749, 751, 752, 753, 754,
755, 773, 775, 777, 779, 780, 781, 782,
784, 785, 786, 787, 789, 792, 794, 795,
796, 797

Program No. 511-11-41

526

Program No. 519-20-21

226, 470, 484

Program No. 519-31-61

882

Program No. 522-11-41

521, 552

Program No. 522-11-81 40	Program No. 522-41-11 100
Program No. 522-13-31 323	Program No. 522-51-21 13
Program No. 522-14-21 768, 800, 801, 802, 803	Program No. 522-51-71 10, 15
Program No. 522-17-21 188	Program No. 522-61-11 301, 302
Program No. 522-18-11 180, 866, 867	Program No. 522-61-31 734
Program No. 522-24-11 372, 863	Program No. 522-62-11 558
Program No. 522-25-31 5, 19, 27, 73, 79, 80, 227	Program No. 522-62-31 261
Program No. 522-31-11 435, 450, 452, 456, 506, 848, 857	Program No. 522-63-11 836
Program No. 522-31-21 44, 778	Program No. 522-63-31 355, 357, 513
Program No. 522-31-31 1, 9, 31, 33, 35, 74, 143, 231	Program No. 522-63-41 317, 318
Program No. 522-31-81 212, 219	Program No. 522-81-12 817
Program No. 522-32-31 47, 170, 171, 561, 562, 563	Program No. 522-81-14 814, 823, 834, 839, 840
Program No. 522-33-11 213	Program No. 522-83-11 275, 532, 533

Program No. 522-99-11
163, 189, 190

Program No. 537-06-34
516

Program No. 537-06-46
345

Program No. 537-06-48
346

Program No. 537-09-20
420

Program No. 537-09-41
217

Program No. 538-02-10
313

Program No. 538-03-11
827

Program No. 538-03-14
390, 809, 833

Program No. 538-03-15
819

Program No. 538-08-14
656

Program No. 538-13-11
539

Program No. 538-14-14
405

Program No. 547-60-00
243

Program No. 552-99-11
162

Program No. 576-02-11
82, 83, 89

Program No. 576-03-14
810

Program No. 577-40-10
394

Program No. 577-50-10
122, 128, 136, 138

Program No. 581-10-11
45, 509

Program No. 581-10-21
276, 284

Program No. 621-25-05
610, 618, 623, 624, 628, 630, 631

Program No. 621-45-10
595

Program No. 621-45-20
596, 597

Program No. 621-45-87
633

Program No. 621-82-80
698

Program No. 622-14-61

619

Program No. 622-29-26

569, 600, 642

Program No. 622-43-31

571, 652, 654, 678, 683, 712

Program No. 622-43-53

632

Program No. 622-56-54

620

Program No. 622-56-61

586, 662

Program No. 622-61-11

575, 576, 577, 580, 582

Program No. 622-63-02

584

Program No. 622-63-08

634, 635, 699

Program No. 622-63-10

573, 574

Program No. 622-63-12

583

Program No. 622-63-13

507, 570, 579, 599, 860

Program No. 622-65-34

658, 659

Program No. 622-65-35

622

Program No. 622-67-65

844, 845, 846, 847, 850, 851, 852, 853,
854

Program No. 622-68-51

591, 602, 613, 627, 629

Program No. 622-96-00

594, 598, 636, 637, 644, 650, 651, 653,
655, 660, 661, 664, 672, 673, 676, 687,
688, 696, 697, 702

Program No. 631-30-01

614

Program No. 632-04-00

300

Program No. 632-64-00

332, 333, 353, 369, 479, 487, 535, 543,
554

Program No. 632-70-00

249

Program No. 632-84-01

891, 892, 906, 907, 921

Program No. 662-63-02

578

Program No. 665-25-38

612, 625, 626

Program No. 704-20-21

223, 224, 228, 232, 464, 468, 469, 480

Program No. 704-50-11 765	Program No. 706-17-21 61
Program No. 704-51-41 798, 799	Program No. 706-17-41 253
Program No. 705-01-11 60, 71, 537	Program No. 706-17-71 21, 22, 209, 210
Program No. 705-04-11 244	Program No. 706-17-81 230
Program No. 705-30-11 822, 889, 893, 902	Program No. 706-21-11 66
Program No. 705-51-21 168, 203, 205	Program No. 706-21-21 339, 340
Program No. 705-51-31 202	Program No. 706-24-11 399
Program No. 706-11-11 303	Program No. 706-25-01 167, 186, 187, 373, 374, 508
Program No. 706-11-21 769	Program No. 706-25-31 129
Program No. 706-12-21 298, 804	Program No. 706-31-11 29, 65, 67, 68, 407, 412, 413, 414, 445, 446, 447, 463, 477
Program No. 706-13-11 451	Program No. 706-31-21 7, 52, 53, 70, 72, 457, 738, 772, 774, 783
Program No. 706-13-31 359	Program No. 706-31-31 2, 3, 32, 34, 38, 127, 144, 145, 151, 156, 157, 193, 194, 195, 495
Program No. 706-13-41 124, 269, 505	

Program No. 706-31-41	352, 384, 397, 522, 551, 557, 567, 568, 776, 805, 807, 829
14, 43, 50, 123, 125, 132, 133, 134, 140, 150, 166, 184, 192, 386, 387, 388, 389, 392, 393	Program No. 706-62-11
Program No. 706-31-51	96, 398
813	Program No. 706-62-21
Program No. 706-31-61	108, 109, 155, 169, 182, 211, 218, 770, 771
559	Program No. 706-63-51
Program No. 706-32-11	252, 258, 259, 260, 262, 265, 266, 299, 310, 320, 341, 354, 356, 358, 360, 361, 362, 363, 365, 367, 368, 370, 395, 400, 566, 858
11, 28, 48	Program No. 706-63-61
Program No. 706-32-21	295, 510
191, 331, 534, 536	Program No. 706-63-71
Program No. 706-32-31	257, 293, 306, 497, 514, 515, 525, 527, 528, 529, 530, 531, 541, 546, 556, 788, 808
148, 149, 159, 181, 185, 483, 565, 843	Program No. 706-63-81
Program No. 706-32-41	321
39, 77, 214, 215, 216, 248, 476	Program No. 706-67-11
Program No. 706-32-51	311
290	Program No. 706-81-12
Program No. 706-51-21	820, 821
51, 62, 204	Program No. 706-81-13
Program No. 706-51-31	812
69, 197, 198, 200, 201, 208, 221, 222, 467	Program No. 706-81-14
Program No. 706-51-71	831, 832, 841
36, 206, 207	Program No. 706-81-21
Program No. 706-60-11	828
806	
Program No. 706-61-11	
130, 251, 254, 255, 279, 294, 305, 307, 308, 309, 312, 314, 315, 316, 337, 351,	

Program No. 706-81-31 793, 816	Program No. 708-72-41 335, 376
Program No. 706-82-11 118	Program No. 710-10-11 179, 542
Program No. 706-82-22 84	Program No. 710-70-21 553
Program No. 706-85-10 288, 547, 548, 549, 555, 564	Program No. 711-50-21 725, 726, 727, 728, 729, 730, 731, 732, 733, 735
Program No. 706-85-20 267, 268, 270, 271, 291, 319, 326, 327, 329, 336, 338, 343, 344, 347, 383	Program No. 712-10-11 146, 161, 172, 173, 174, 178
Program No. 706-85-24 328	Program No. 712-10-21 277, 278, 280, 281, 282, 283, 285, 286
Program No. 706-85-30 408, 409, 417, 459	Program No. 712-20-21 4, 922
Program No. 706-85-40 438, 461, 849	Program No. 713-23-02 289, 350
Program No. 706-85-41 58, 59	Program No. 713-80-00 403, 418, 419, 421, 428, 439
Program No. 706-87-11 242	Program No. 713-80-11 240
Program No. 706-87-21 93, 153, 237	Program No. 714-01-27 682
Program No. 707-85-10 517, 518, 519, 520	Program No. 714-05-10 8
Program No. 708-72-40 410, 411, 431, 440, 473, 474	Program No. 714-05-20 23, 24

Program No. 714-05-30

12

Program No. 718-20-01

415

Program No. 721-20-41

274

Program No. 721-99-00

868

Program No. 722-59-87

154, 160

Program No. 722-63-87

256

Program No. 725-10-11

183, 538, 790, 791

Program No. 725-10-31

759

Program No. 727-01-22

756, 764

Program No. 727-01-26

99, 101, 104, 112, 113

Program No. 727-03-14

811

Program No. 727-03-15

491, 492, 496, 815

Program No. 727-04-01

87

Program No. 728-30-10

88, 396, 750, 758, 760, 761, 762, 862

Program No. 728-40-10

85, 97, 98, 117, 196, 585

Program No. 728-40-30

105, 107, 119, 120

Program No. 728-50-10

126, 135, 137, 139, 142, 152, 164, 165,
176

Program No. 728-60-10

86, 106, 111, 114, 115

Program No. 728-60-30

94, 95, 110, 116, 121, 235, 246

Program No. 729-70-21

63

Program No. 732-50-00

904, 905

Program No. 735-10-31

158, 740, 741, 743, 744

Program No. 755-01-00

499

Program No. 755-06-00

147, 175, 322, 334, 364, 366, 375, 379,
380, 523, 544, 545, 888, 913, 914

Program No. 755-09-00

482, 500, 588

Program No. 755-10-31

742

Program No. 755-30-11

916

Program No. 757-01-00

391, 859

Program No. 767-01-26

102

Program No. 771-10-10

879

Program No. 775-06-00

910

Program No. 781-10-11

30, 199, 825, 838

Program No. 781-10-12

818, 842

Program No. 781-10-13

550, 830, 835

Program No. 781-20-11

837

Program No. 781-30-12

826

Program No. 781-30-14

78, 824

Program No. 786-80-80

90, 91, 92

Program No. 859-00-00

233

Program No. 865-10-03

234, 247

Program No. 880-02-00

692

Program No. 896-10-00

430

Program No. 896-30-00

239, 406, 884, 885, 887

Program No. 953-20-00

236

Program No. 992-16-03

490

Program No. 992-16-05

870, 871, 872, 874, 875, 877, 878

Program No. 992-16-08

876

Program No. 992-20-03

465

Program No. 992-20-08

20, 37, 41, 46, 64, 76, 229

Program No. 992-20-80

18, 75

Program No. 992-30-11

757, 763, 767

Program No. 992-35-12

177, 225, 250, 304, 485, 489, 739

Program No. 992-35-15

587

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 07704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE March 2002	3. REPORT TYPE AND DATES COVERED Technical Memorandum		
4. TITLE AND SUBTITLE NASA Langley Scientific and Technical Information Output—2001		5. FUNDING NUMBERS		
6. AUTHOR(S) Susan H. Stewart, Compiler				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) NASA Langley Research Center Hampton, VA 23681-2199		8. PERFORMING ORGANIZATION REPORT NUMBER L-18168		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) National Aeronautics and Space Administration Washington, DC 20546-0001		10. SPONSORING/MONITORING AGENCY REPORT NUMBER NASA/TM-2002-211446		
11. SUPPLEMENTARY NOTES Available electronically at the following URL address: http://techreports.larc.nasa.gov/ltrs/				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Unclassified—Unlimited Subject Category 82 Distribution: Nonstandard Availability: NASA CASI (301) 621-0390		12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words) This document is a compilation of the scientific and technical information that the Langley Research Center has produced during the calendar year 2001. Included are citations for Technical Publications, Conference Publications, Technical Memorandums, Contractor Reports, Journal Articles and Book Publications, Meeting Presentations, Technical Talks, and Patents.				
14. SUBJECT TERMS Bibliographies; Scientific and technical information; Documentation; Indexes			15. NUMBER OF PAGES 162	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL	